VISION TO VICTORY - SPACE, MAHAN, AND MITCHELL:

THE ROLE OF THE VISIONARY IN CROSS-ORGANIZATIONAL INNOVATION

BY

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About the Author

Major Fred W. Gaudlip was born in Portage, Pennsylvania. He earned a Bachelor of Science degree in Human Factors Engineering from the US Air Force Academy in 1986 (RTB) and a Masters of Arts in International Relations from Creighton University Omaha, Nebraska in 1990. He is also a 2000 graduate of Air Command and Staff College. His military experience began at the 1000th Satellite Operations Group, Omaha, Nebraska as a satellite mission planner and a space systems analyst. Next he served as the first Chief of Training at the 5th Surveillance Squadron, RAF Feltwell, UK. He then became the Chief of the Advanced Space Control Concepts Section, Headquarters Air Force Space Command. Next, during a two year tour to Osan Air Base ROK, Major Gaudlip served as Operations Officer and Commander of Detachment 1, 3rd Space Surveillance Squadron. During this period, Major Gaudlip also gained first hand experience in Theater Missile Defense operations. Finally, he was the Deputy Chief of the Chief of Staff of the Air Force Presentations Division, Directorate of Operations and Training, Headquarters United States Air Force. During this assignment he was responsible for providing daily updates on all Air Force operational issues, including Operations DESERT FOX and ALLIED FORCE, to the Secretary of the Air Force and the Chief of Staff. Major Gaudlip has been awarded the Meritorious Service Medal with three oak leaf clusters. He is master space operator and is currently assigned as Chief of Contingency Plans for the Pacific Air Forces.

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ABSTRACT

Accomplishing the space changes recommended by the Rumsfeld Commission requires a major national security (MNS) change. The term MNS change is coined in this thesis to define a change that requires multiple Departments of the United States government to alter their internal functions. MNS change is, by definition, a cross-organizational change.

In this light, this thesis expands upon existing military innovation thought by using the concept of strategic vision to investigate the role of the visionary in MNS change. The initial hypothesis is that the cross-organizational nature of MNS change makes it more difficult to accomplish than innovation within a single organization. In order to investigate this hypothesis, a tailored step-by-step model for effective visionary leadership is developed by adapting existing vision models found in strategic management literature. The adaptation is necessary to overcome the limits of existing models, which are largely focused on a single organization. After establishing the necessary visionary framework, the framework is employed to systematically evaluate the historic changes to the US security structure brought about by the movements commonly associated with Alfred Thayer Mahan and William "Billy" Mitchell. The Mahanian vision led the US to develop a modern navy while Mitchell's vision led to an independent US Air Force. The results from the case studies are used to clarify the role

of the visionary in MNS change as well as the relative importance of a visionary to other previously identified factors associated with military innovation.

The thesis draws three main conclusions. First, MNS change does represent a unique category of change and it is more difficult to achieve than is single organizational innovation. Second, the visionary plays a necessary but not sufficient role in this process largely because of the need for human judgement and the need to bridge between organizations. Third, major national security change may also require a change in the national security strategy before a vision becomes achievable.

The thesis also presents two suggestions. First, military officers must be given education and experience in multiple departments of the US government if they are to serve as effective visionaries. Second, scholars interested in military innovation should devote more effort to understanding the leadership role in the process of MNS change because several issues are poised to demand this category of change.

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APPROVAL

The undersigned certify that this thesis meets masters-level standards of research, argumentation, and expression.

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PETER L. HAYS (Date)

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JOHN G. TERINO (Date)

Chapter 1

INTRODUCTION

…in bureaucracies the absence of innovation is the rule, the natural state

Stephen Peter Rosen
Winning the Next War

In sum, military innovation in peacetime is a complex process whose interfacing variables defy easy categorization. They might indeed be said to defy categorization at all.

Dennis E. Showalter
The Challenge of Change

It should come as no surprise that men who possess these intellectual and psychological qualities in precisely the right blend suitable for their particular time and circumstances are very rare indeed – one reason that the record for military adaptation in peacetime is more often a tale of sorrow than of joy.

Dr. Harold R. Winton
The Challenge of Change

In 1959 in front of the US Senate, General Bernard Schriever argued that the US Air Force would possess an arsenal of space weapons by 1970. [1] Since then, some in military circles, especially space operators themselves, have expected that space would come to play a prominent role in US military operations. While some progress has been made, there remains dissatisfaction over the pace and emphasis. Recently, the "Rumsfeld Report" reflected this continued dissatisfaction; "the US has not yet taken the steps

necessary to develop the needed [space] capabilities."[2] The report stopped short of recommending weapons, but unanimously concluded,

> We know from history that every medium – air, land and sea – has seen conflict. Reality indicates that space will be no different. Given this virtual certainty, the US must develop the means both to deter and to defend against hostile acts in and from space. This will require superior space capabilities.[3]

Why, in 42 years, has space not gained the prominence many thoughts it should?[4] What can be done to focus and accelerate progress? Where can one look for answers?

Rather than answer these questions directly, this thesis examines the visionary efforts of Alfred Thayer Mahan and William "Billy" Mitchell to clarify the role of the visionary in precipitating major cross-organizational military change. From a theoretical perspective, it attempts to establish the relative role of the visionary vis-à-vis previously identified factors associated with military innovation. Directly stated, this work endeavors to address the following questions. What is a vision? How is a vision created, communicated, and executed? How does a vision for major national security change differ from the standard conception of a vision? How did Mahan and Mitchell develop as visionaries? What was the key factors influencing their development? Why have America's most prominent visionaries generally not been the formal leaders of their services? What is the role of the visionary in major national security change? How important is a visionary relative to other change-related factors? Is a visionary essential

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[1] David N. Spires, *Beyond Horizons: A Half Century of Air Force Space Leadership*, (Maxwell AFB, Ala.: Air University Press, 1998), 70.

[2] "Rumsfeld Report" is a common title for Pursuant to Public Law 106-65, "Report to Assess United States National Security Space Management and Organization, Released 11 January 2000, x.

[3] Ibid., x.

[4] The term "prominence" is used instead of associating the level of change required with the development of space weapons because, as the Rumsfeld Report points out, major changes are necessary whether or not weapons are developed.

to major national security military change? Is a space visionary required to bring about major change in the role space plays in American security?

Many recent efforts in the field of military innovation tend to stress technology and organization. It is the author's hope that this thesis will provide some balance by emphasizing the role of the human mind in this difficult, complex, and only partially understood process.

BACKGROUND

The current emphasis on military innovation began in the mid 1980's when US defense officials became aware of Soviet Marshal Nikolai Ogarkov's writings that outlined the concepts of a Revolution in Military Affairs (RMA) and a Military Technical Revolution (MTR).[5] Later in the 1980's, prominent political scientist Stephen Rosen published the benchmark volume *Winning the Next War*. In it, Rosen makes two important observations that are immediately relevant to this thesis.

First, he asserts it is prudent to "set aside grand theories of innovation" and break the phenomenon up into "more manageable categories."[6] Rosen makes a compelling argument that all change can be categorized based on its time of occurrence, wartime or peacetime. He also suggests the category of technologically driven innovation, but the discussion in this area is less than satisfying. In practice, Rosen's advice suggests that scholars should draw inferences from specific, historically similar situations, differentiated by wartime and peacetime, rather than look to a theoretical model for assistance. Rosen also provides a definition of innovation that is useful in defining the

[5] Robert Tomes, "Revolution in Military Affairs – A History," *Military Review*, 80, no. 5 (September-October 2000): 98-102.

category of change under consideration. Doing so reduces the number of historic periods to be considered when looking for insight into a specific innovation dilemma. Rosen's advice and approach are employed in this thesis.

Second, he emphasizes the role of leadership in accomplishing major innovation during peacetime,

> Peacetime innovation has been possible when senior military officers with traditional credentials, reacting not to intelligence about the enemy but to a structural change in the security environment, have acted to create a new pathway for junior officers practicing a new way of war.[7]

This emphasis provided motivation for the author to examine further the role of leadership in innovation.

Within the last several years, two other significant and related works appeared.[8] Both adhere to Rosen's methodological advice and avoid attempting a grand theory of innovation. Instead, based on contextual similarities such as declining budgets and strategic pause, they examine the period between World War I and World War II to seek suggestive guidance relative to today's post Cold War environment. Both also contain frequent references to leadership as a critical factor in innovation, particularly in successful cases.

Collectively these works indicate that military innovation is not yet adequately understood, but that leadership is likely to emerge as an important factor. These works also point out that leadership plays two distinct roles, protective and visionary. The protective leader is the high ranking officer who encourages, supports, and promotes the

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[6] Stephen Peter Rosen, *Winning the Next War: Innovation and the Modern Military*, (Ithaca, N.Y.: Cornell University Press, 1991), 5.

[7] Ibid., 251.

[8] Williamson Murray and Allan R. Millet, eds., Military *Innovation in the Interwar Period*, (New York: Cambridge University Press, 1996). Harold R. Winton and David R. Mets, eds., *The Challenge of Change: Military Institutions and New Realities, 1918-1941*, (Lincoln, Neb.: University of Nebraska Press, 2000).

younger innovators while the visionary is one who convinces others to embrace the "new theory of victory" or the "new way of war."[9] These functions need not be performed by different people, in fact, some of the most successful cases presented in these volumes, General Hans Von Seeckt with the German Army and Admiral William Moffett in American carrier aviation, suggest it may be preferable for one officer to perform both functions. Either way, the function of protector appears to be fairly straightforward, but the role of the visionary warrants further study. Thus, it is within this context that the present work endeavors to contribute to a deeper understanding of the phenomenon of military innovation.

CATEGORY DEFINITION

Based on Rosen's methodological advice, this study first attempts to accurately define and then specify the category of change under examination. Categorization at this point is also a practical issue because, as will become apparent shortly, the category of change adopted produces cascading effects throughout the remainder of the effort.

Since no unifying theory of innovation exists, Rosen's definition of major innovation serves as a good starting point.

> … major innovation is defined as a change in one of the primary combat arms of a service in the way it fights or alternatively, as the creation of a new combat arm. A combat arm is a functional division within the military in which one weapon system dominates the way in which its units fight. Within the US Army, for example, one can identify the infantry, artillery, armor, and helicopter aviation combat arms. A major innovation involves a change in the concepts of operation of that combat arm, that is, the ideas governing the ways it uses its forces to win a campaign, as opposed to a tactical innovation, which is a change in the way individual weapons are applied to the target and environment in battle. A major

[9] The concept of a "new way of war" is maintained throughout this thesis even though would be more accurate to say "new way of security" since in this thesis the term encompasses changes outside the Department of Defense. However, "new way of war" is retained for simplicity; Rosen, 20.

> innovation also involves a change in the relation of that combat arm to other combat arms and a downgrading or abandoning of older concepts of operations and possibly a formerly dominant weapon. Changes in the form doctrine of a military organization that leave the essential workings of that organization unaltered do not count as an innovation by this definition.[10]

Rosen's treatment is pertinent because it highlights useful definitional components. First, military innovation is only important when it alters the manner in which combat is conducted. Second, the interplay between organizations (combat arms) is delineated as an essential discriminatory element. Third, it suggests innovation in the military varies from minor to major implying that different factors may be at work at different organizational levels or that the difficulty in achieving innovation increases as the organizational level affected increases.

In light of these concepts, the rise of space to prominence within the national security community is referred to as major national security change (MNS change).[11] This is justified for several reasons. Unlike most of the cases examined in existing literature, the impact of space rising to prominence does not simply affect one combat arm or even one service.[12] Instead it causes organizational and operational impacts within several departments of the US government such as the Department of State, the Central Intelligence Agency, and the Department of Transportation just to name a few. In addition, it results in a "new way of war" that will have dramatic impacts on the entire Department of Defense (DoD). Finally, a major change in space capabilities could also

[10] Rosen, 7-8.

[11] This terminology also reflects the logic and emphasis of the "Rumsfeld Report" which focused on national security space issues.

[12] The "Rumsfeld Report" Lists the Departments of Energy, Commerce, Interior, Justice, State, and Transportation as well as several governmental agencies; Rumsfeld, 3.

involve a substantial shift in resources within the DoD. Again, this fact magnifies the level of importance this change might have in the eyes of other defense actors.

Implicit in this definition is the idea that change within one organization can be separated from change across organizational boundaries. Intuition suggests that cross-organizational change is more difficult to achieve since change advocates must alter several bureaucratic entities rather than merely altering the organization to which they belong. This difference is key to the current discussion and remains a central theme throughout the thesis.

In order to reflect the author's hypothesis that change becomes more difficult as more organizations become involved, several related terms are used. Change at the tactical or unit level is referred to as unit level change. Change within a combat arm (i.e. artillery, armor, or infantry) is referred to as branch level change. Change within one service is service level change and change confined to the DoD is military change. These terms are important because they define the level at which change is enacted and provide increased precision for discussion of cross-organizational change.

At this point, a note is in order to justify the author's use of terms like MNS change and major military change instead of terms like RMA, MTR, innovation, or reform. The author prefers to describe change categories by placing adjectives in front of the word change because existing terms lack definitional rigor and bring with them intellectual baggage. For instance, the term RMA generally means "a discontinuous increase in military capability and effectiveness resulting from combinations of new technology, doctrine, and organization."[13] However, scholars cannot agree on whether an RMA is

[13] Eric R. Sterner, "You Say you Want a Revolution (in Military Affairs)," *Comparative Strategy*, 18, no. 4 (October-December 1999): 297.

currently occurring or even when one occurred in the past. The disagreements revolve around the relative roles of technology, doctrine, organization, military effectiveness, and the required rapidity of the change. The term MTR suffers from much of the same malaise. Innovation and reform tend to be associated with technological development and doctrinal change, respectively. Thus, until a consensus emerges concerning the use of such terms, the author prefers to use modified forms of the more generic term change. However, in order to improve readability, the term's innovation and reform will be used as synonyms for change.

MAHAN AND MITCHELL

After defining MNS change as the category of interest for this thesis, it is possible to select case studies that may provide applicable insights. The case studies had to meet five criteria. The first three come directly from the categorical definition, while the last two are practical necessities. First, the change had to represent a "new way of war." Second, events involved had to produce serious dislocation in government departments outside the military. Third, the change had to involve a significant redistribution of resources within the US military community. Fourth, the case study had to come from US history. This limitation was deemed necessary to ensure that the societal, cultural, and governmental factors reasonably matched the factors involved in the current space dilemma. Finally, a visionary had to be associated with the change.

Based on these criteria, a review of American military history suggests only two possibilities. First, is the US decision to transition from an isolationist land power to a quasi-imperialist land and sea power during the latter part of the nineteenth century. Second is the US transition from a land and sea power to a land, sea, and air power in the

decades following World War I. As soon as one considers these transitions, two names come to mind -- names etched as visionaries in American military history: Alfred Thayer Mahan and William "Billy" Mitchell.

METHODOLOGY

For this thesis to illuminate the role of the visionary in accomplishing MNS change, it makes sense to start with a thorough investigation of vision theory. Therefore, Chapter Two is entirely dedicated to vision theory and practice. Vision theory warrants its own chapter because there are important limitations to current vision literature.[14] First, most vision literature assumes the vision developed is for a single organization under the auspices of an organizational leader with broad executive powers including: defining roles and missions (purpose), budgetary discretion, hiring and firing authority, and whatever other control is necessary to craft and execute the vision. In the case of the major national security changes required for space, few of these assumptions are accurate. Therefore, the discussion of vision included in this thesis highlights these shortcomings and improvises a model of vision implementation applicable to MNS change as required for space.

In total, Chapter Two is crafted to accomplish three things. First, it provides the reader with a clear understanding of the challenges involved with creating, communicating, and executing a cross-organizational national security changing vision. Second, it establishes a model that will be employed as a lens to examine the visionary efforts of Mahan and Mitchell in subsequent chapters. Finally, the discussion ensures a

[14] "Vision theory" is used to refer to existing scholarship concerning the role of a visionary and a vision in organizational change. Information is found in the fields of organizational behavior as well as strategic management. See Chapter Two for pertinent sources.

common level of understanding concerning vision theory. In a stand-alone form, Chapter Two could serve as a generic "how to" guide for developing and implementing vision.

Chapters Three and Four employ the vision model developed in Chapter Two as an organizational framework to examine the visionary efforts of Alfred Thayer Mahan and William "Billy" Mitchell. Each chapter begins with a background discussion of the subject's early life and contextual factors. The emphasis then shifts to analyzing each man's vision creation, communication, and execution efforts in accordance with the format laid out earlier. Each ends with interim conclusions.

Due to the amount of material available, the use of the vision model was essential to separate the wheat from the chaff when examining the life stories of Mahan and Mitchell. By using vision theory, the author was able to concentrate on events that contributed to the applicable change movement and omit events that seemed unrelated. Of course, the downside of this approach is that it opens the possibility that some significant event was improperly interpreted or omitted entirely. This work is not intended to substitute as a biography; it is possible that a different scholar will come to a separate conclusion after reviewing the same sources that were used here. That said, the author has attempted in every way to convey not only actions, but also the plausible motivations for those actions based on contextual data. Additionally, it is hoped that the use of vision as an analytical framework will reinforce and further clarify the vision process for aspiring space visionaries.

In order to keep this thesis at a reasonable length, the author made several other working assumptions and simplifications concerning the visionary efforts of Mahan and Mitchell.

As a matter of procedure, Mahan's vision was considered complete once he published *The Influence of Sea Power on History, 1660-1873* in 1890 and Mitchell's was considered complete when he published *Our Air Force* in 1921. These publications were chosen because they represent the first comprehensive public presentation of each man's vision. Therefore, events that transpired before the publication of each vision are considered integral in the creation of their vision. Events that transpired after the publication of there are categorized as communication and execution. Since neither Mahan nor Mitchell ever gained official prominence within their respective organizations, and thus never had the authority to execute their visions directly, the discussion of execution is treated in less detail.

Also, the visions described in each man's book have been simplified. Mahan's is characterized as a call for a larger, modern navy and support structure. Mitchell's was a desire for a larger, independent air force. In both cases, the simplification was deemed necessary to avoid interpretive discussions surrounding the exact content of the visions. In both cases, the details of the visions evolved over time and emphasized different parts of the vision at different times. The simplified visions represent the part of the vision assessed by the author to have been a rallying concept for each man's supporters. It is a bit unfair to represent the works of these men in such a simplistic fashion, but it is necessary to maintain focus and complete the task at hand in a reasonable length of time.

In a related way, tactical issues have also been excluded as much as practicable. The present work makes no effort to assess whether the underlying details of each vision were effective warfighting prescriptions. Others have scrutinized and written on the usefulness and accuracy of Mahan and Mitchell's work. As the chapter on vision will explain, a

good vision does not require the visionary to tell his supporters how to do things, but it should describe an attractive future objective. Based on this definition, it is not essential that Mahan correctly assessed fleet composition and tactics or that Mitchell established the correct proportion of bomber, pursuit, and attack aircraft. What is essential, is that both men inspired their supporters to embrace the vision of a considerably different American military structure. Again, this paper is about how well Mahan and Mitchell functioned as visionaries. It is not an assessment of their abilities as soldiers or tacticians. These subjects will be investigated only as required to meet the objectives set out for this study.

It is also possible to argue in great detail about whether or not the visions of Mahan or Mitchell were ever achieved. Again simplification is appropriate. For Mahan, because of his great acclaim and the successful end to the Spanish-American war, his vision will be considered complete by the conclusion of that conflict. Mitchell's vision is considered complete with establishment of the US Air Force in 1947.

The final chapter suggests and describes a number of roles appropriate for a visionary promoting MNS change. Efforts are also made to establish the relative importance of vision in the innovation process and assess whether a visionary is necessary for space to ascend to a position of prominence within the US national security community.

Chapter 2

CROSS-ORGANIZATIONAL VISION

Vision without action is daydream. Action without vision is nightmare.

Japanese Proverb

When it is darkest, men see the stars.

Ralph Waldo Emerson

The difficulty lies not so much in developing new ideas as in escaping from old ones.

John Maynard Keynes

A vision is little more than an empty dream until it is widely shared and accepted. Only then does it acquire the force necessary to change an organization and move it in the intended direction.

Burt Nanus
Visionary Leadership

The essence of a visionary company comes in the translation of its core ideology and its own unique drive for progress into the very fabric of the organization — into goals, strategies, tactics, policies, processes, cultural practices, management behaviors, building layouts, pay systems, accounting systems, job design — into everything that a company does. A visionary company creates a total environment that envelops employees, bombarding them with a set of signals so consistent and mutually reinforcing that it's virtually impossible to misunderstand the company's ideology and ambitions.

James C. Collins and Jerry I. Porras
Built to Last

Introduction

Modern strategic management literature is voluminous, but no existing literature specifically addresses the challenges a visionary is likely to encounter while attempting to change the American way of war. Of the hundreds of books written to cover all aspects of strategic management, a substantial number focus or touch upon techniques for using vision to improve or alter an individual organization's function or performance. However, many of these writings are focused on corporate change and are limited in their application to military change. Consequently, the military has developed a fairly comprehensive amount of vision literature, but it is also mostly focused at the individual organization level and does not lend itself to cross-organizational change.

In an effort to escape the focus on the individual organization, the current chapter builds upon existing corporate and military vision literature to develop a model uniquely suited for application in cross-organizational major national security (MNS) change. The new model is different because of the added emphasis of dealing with multiple organizations, their cultures, and the unavoidable opposition. The discussion also serves as a thorough review of vision theory and practice.

The level of detail provided in some areas of this model is simplified in an attempt to balance completeness with manageability. This simplification is mostly evident in areas that deal with technical accuracy and operational suitability. While any useful vision for space should be technically feasible and operationally sound (even if it stretches the limit on these terms), ensuring these qualities is not the primary focus of the present study. Still, on several occasions the author detours to make amplifications deemed relevant and significant to the task at hand.

In subsequent chapters the author uses the new model to analyze the reform efforts of Mahan and Mitchell. Using the vision process provides a simple, but thorough, framework that permits a structured, methodical review of military change. The emphasis is to highlight key challenges and uncover style or process strengths and weaknesses.

VISION DEFINED AND EXAMINED

What is vision? One scholar in the field of strategic management defines vision as, "a realistic, credible, attractive future for your organization."[15] This definition is useful because it is both concise and powerful. Examining it closely will yield a more concrete understanding of what vision is and why it is important to the present discussion.

Vision is focused on the future. Its purpose is for leaders to define the condition they want to exist at some point in the future. It is not a roadmap of how to get to the condition; it is simply a goal. It may be helpful to think of a vision as an architect's drawing as opposed to a blueprint.[16] For members of the US security community, the future is one of the most contentious topics of all. Depending upon the organization, the individual's interpretations of history, and current political trends, radically different versions of the future emerge. In a related manner, the usefulness of any one type of weapon, or even of any single branch, is open to debate. It is probably easier to create the future than it is to agree upon it.

As stated earlier, most management literature is couched in business terms. Authors normally take for granted that the leader of an organization has both the authority and

[15] Burt Nanus, *Visionary Leadership: Creating a Compelling Sense of Direction for Your Organization (*San Francisco, CA: Jossey-Bass Inc., 1992), 8.

desire to change. The nature of military organizations calls both of these assumptions into question. First, formal leaders in military organizations are seldom visionaries. Their conservative nature causes them to value stability and to see change as a threat to established bases of authority.[17] Military necessity also rewards the pragmatist, the officer that can produce success right now with the tools available. Often these pragmatists do not have the desire to establish long-term visions because, like the corporate leader, military leaders are too busy executing daily responsibilities to make time to develop a long-term vision. This tendency is exacerbated by the frequent moves required by the military personnel system. Military leaders, even at the very highest level, often find themselves asking, "Why should I spend time on a vision when I'll be gone before the vision has a chance to come to fruition?" Second, military leaders do not have the financial authority required to execute major changes. Congress holds the purse strings for US military organizations and, therefore, must be convinced that the changes are in the best interest of the nation before the funds will be provided.

Pondering the phrase "for your organization" also causes problems for military visionaries. In the case of Mitchell, it is not clear whether his organization was American airmen, the United States Army, or the citizens of the nation. Different organizations will have different views of whether a vision is realistic, credible or attractive. Since multiple bureaucracies are involved in cross-organizational change, it becomes necessary to establish a vision that is internally consistent and yet attractive to as many of the organizations involved as possible.

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[16] Noel M. Tichy and Mary Anne Devanna, *The Transformation Leader*, (New York: John Wiley & Sons, 1990), 128.

[17] Morris Janowitz, *The Professional Soldier* (New York: The Free Press, 1971), 48.

The first term, "realistic" is perhaps the most contentious among various organizations. Things that are realistic to one person may be fantasy to another. If Bill Gates had set out with a vision to become the most wealthy man on earth by selling computer software, would most people consider that a "realistic" goal? A different author insists that visions should include, "big hairy audacious goals," these goals "fall in the gray area where reason and prudence might say, 'This is unreasonable,' but the drive for progress says, we believe we can do it nonetheless."[18] Defining a vision in this manner is a bit more useful than Nanus' definition. The idea is that the goal should be neither too easy nor too difficult. It should be simple and challenging so as to inspire followers within the target organization. If the goal is too difficult, it will be fail to be reasonable or credible. If it is too easy, it will not be attractive.

Aware of the fact that vision, like beauty, is in the eye of the beholder and that the ability to implement a vision depends upon those in authority, a description of the process for developing a vision is important. The following discussion provides a structure for military vision development and execution within the US national security structure.

THE VISION PROCESS

Transforming thoughts and words into equipment, personnel, and doctrine capable of winning a war is a significant challenge. Strategic management scholars have developed several step-by-step processes for leaders to facilitate the use of vision as a strategic management tool.[19] Likewise, military organizations have adapted these processes for

[18] James C. Collins, and Jerry I. Porras, *Built to Last: Successful Habits of Visionary Companies* (New York: HarperCollins Publishers, Inc., 1994), 97.

[19] The primary management texts consulted to establish this model were: Nanus, 3-172. Tichy, 89-149; Cynthia D. Scott, Dennis T. Jaffe, and Glenn R. Tobe, *Organizational Vision, Values, and Mission* (Menlo Park, CA: Crisp Publications Inc., 1993), 1-101; Benjamin B. Tregoe et al., *Vision in Action: Putting a Winning Strategy to Work* (New York: Simon and Schuster, 1989), 36-169.

application within their organizations.[20] The major steps of the process are straightforward and generally agreed upon: vision creation, vision communication, and vision execution.[21]

VISION CREATION

Effective vision creation is, by far, the most difficult step in the vision process. An appropriate vision requires professional competence, creativity, courage, discipline, and effort. Professional competence is required to ensure a firm understanding of war from its political and sociological underpinnings down to tactical choices faced by soldiers under fire. No vision will survive if it does not harmonize with the reality of war as its practitioners currently see it. The visionary should ensure other war fighters understand, even if they do not agree, how the vision will result in a better way of war. Creativity is required because the visionary must visualize new realities. His mind must be nimble enough to realize that there are several, equally likely, futures. Courage is required to dismiss a preferred vision if it doesn't satisfy the future as projected by professional competence and creativity. Likewise, courage is required to stand by conclusions that are not commonly accepted. Discipline and effort are required to ensure the process is accomplished with the necessary rigor. Given these considerations, following the steps below is likely to produce a useful vision.

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[20] "Strategic Leadership and Decision-Making: Strategic Vision," 4 December 2000, *National Defense University*, on-line, Internet, 24 April 2001. "Strategic Leadership Primer." 15 December 2000, *Department of Command, Leadership and Management, Army War College*," on-line, Internet 15 December 2000.

[21] The model presented in the following pages is synthesized from the texts noted above. It represents the author's hypothesis of the correct steps for a cross-organizational visionary. The steps are designed to balance comprehensiveness with brevity. For deeper understanding the reader is encouraged to peruse the sources listed.

a. Situational analysis/stimuli recognition. Meaningful corporate change begins with the question. Why is change necessary? What is the motivation for producing a new vision? Answers to these questions fall into three categories. The organization may need to capitalize on an opportunity, it may need to fend off a threat, or it may need to correct internal deficiencies.[22] Some interpretation is required to adapt these categories to military use.

In the military, opportunity comes in many forms, but in the last century opportunity is most often provided by new technology. Technology, properly applied, can provide military advantage. It can reduce casualties or increase the cost-effectiveness of military forces. Opportunities can also come in other forms. A strong economy can provide extra funding. This additional funding, if available to the military, can buy more new or existing technology, increase the number of personnel in uniform, or improve the pay and benefits of those already in uniform. Leaders must stay alert to recognize opportunities for change.

Threats can also serve as an impetus for change in the military community. The US expends a great deal of resources to ensure its military equipment is superior to that of its likely opponents. When intelligence determines a competitor has produced a superior weapon, shock waves travel through the US defense establishment and changes are made. However, this type of change is normally evolutionary in nature and can be accomplished as a branch or service level change. On the other hand, some argue serious structural change in the international security environment (such as the rise of Imperial Japan or

[22] Nanus, 19 and Scott, 51.

Nazi Germany) may be required for major innovation to occur.[23] Thus, one could hypothesize that the level of change is, in some way, related to the level of threat.

The need to correct internal deficiencies requires the most alertness and professional courage. Only the exceptional leader has the courage required to make a frank and unbiased assessment of their organization. Of course, before a leader can assess whether their organization has internal deficiencies, they must firmly understand the purpose of their organization. They must have firm answers to questions such as: What business are we in? Or phrased for military organizations: What functions do we perform? Are these functions appropriate for this organization? When combined with other defense organizations are all bases covered? Only after the leader clearly understands the organization's functions, internal dynamics, and where it fits into the larger bureaucratic structure, can they move on to locating internal deficiencies. Deficiencies emerge as the result of frank answers to questions like; is this organization performing all of its responsibilities at an acceptable level? Is the organization healthy given its stated purposes? What improvements can be made?

b. Analyze the situation and blockers and supporters. After uncovering stimuli for change, it is essential to determine who must be involved for the necessary change to take place. The visionary must consider two groups, supporters and blockers. Supporters are those people immediately involved in the decision who must support the change before it will occur. Blockers are those who may not have the authority to approve the change but may have enough political or bureaucratic clout to stop it. For instance, for changes in space operations the USAF (if it is supportive) must garner support from the

[23] Stephen Peter Rosen, *Winning the Next War: Innovation and the Modern Military* (Ithaca, New York: Cornell University Press, 1991), 253-4.

Joint Staff, the Secretary of Defense (SecDef), Congress, and, maybe, even the President. Blockers may be almost any organization which, depending upon the issue, can rally opposition to the change. In this space case, the National Reconnaissance Office (NRO), the Department of State, the US Army, or the US Navy may argue that the money is more cost-effectively spent on some other endeavor. If these counter arguments are successful they could stop the change. Thus, an effective vision should be operationally sound and clear enough to garner approval from the required supporters and disarm the counter-arguments of blockers. Throughout this thesis the primary groups of interest will include, but not be limited to the President, the US public, Congress, military branches, and to a lesser degree, foreign nations.

c. Identify obstacles and constraints. Besides groups with opposing interests, there are many other types of obstacles that can stand in the way of achieving a desired vision. Items such as treaties, resource constraints, technology, and attitudes all present barriers that must be considered. It is important to accept obstacles that cannot be changed, but it is equally important to adhere to the concept of the "big hairy audacious goal," as described earlier, and go beyond what prudence might say is possible. The important result from this step is to make sure there are no existing obstacles capable of discrediting the vision and causing it to be disregarded. The more serious the constraint, the more directly it must be addressed in the vision.

d. Develop a vision or visions. To this point the steps ensure the vision practitioner accurately describes the current state of the organization and its external environment. This step uses the information gathered earlier to synthesize multiple visions. Professional competence and creativity play the major roles during this step. The

resulting visions should meet the requirements set forth at the beginning of this section; namely, they should be realistic, credible, and attractive. Visions should vividly paint a picture of the new or modified organization. Also, it is necessary to remain aware that the vision produced will need an implementation plan. Specifically, the visionary should take time to ensure that each preliminary vision can be communicated and executed with resources available or with resources the plan is designed to make available.

e. Analyze the vision against alternate futures. Predicting the future is a precarious undertaking. Good visions will be flexible enough to be useful in the most probable future environments and should be heavily weighted to handling "worst case" scenarios. There is always the possibility that an unexpected threat will surface or that a key technology will not develop as hoped. If either or both of these events happen, a new vision may need to be created. As an example of why this process is necessary, consider the USAF after WW II. US policy heavily stressed reliance on nuclear weapons. The USAF created a vision of a mighty bomber force and then brought that force into being. When the Vietnam War arrived, the USAF realized that a nuclear bomber force was of little utility in limited wars. The USAF may have been more prepared if it had examined the usefulness of its vision in alternate futures.

f. Select and finalize vision.

No vision will work perfectly for all possible futures. The final vision should be the one which best meets the criteria of a good vision, is compatible with the organization's culture and values, and applies to a broad range of alternative futures.[24] If the vision is powerful enough it will create the future rather than respond to it.

[24] "Strategic Leadership and Decision-Making: Strategic Vision," 4 December 2000, *National Defense University*, on-line, Internet, 24 April 2001.

Vision Communication

Communicating a vision is often overlooked or underdeveloped. Perhaps because it seems so simple. In a corporation or an individual military unit, the leader has the attention of his audience because of positional legitimacy and the ability to distribute or withhold rewards of one sort or another. However, it is an extremely difficult challenge to effectively communicate a vision to the entire DoD, other Departments, the US public, the Congress, and the Executive branch. The challenge is further magnified if the change is viewed as revolutionary or is very controversial. Closely considering the difficulty of communicating a vision for MNS change yields several suggestions. The suggestions can be grouped under three headings.

a. Content. Prior to deciding what to say, the audience should be divided into identifiable groups (US Army, US Navy, Department of State, etc.). As a minimum the groups should include those who will carry out the vision (action group), supporters, and blockers. Once groups have been identified, the message should be tailored for each group's consumption. Tailoring does not mean distorting; it refers to the need to present the desired message in terms of the language and the culture of the receiving organization. The vision should be simply stated and jargon free. It goes without saying that new theory of victory should be presented in a manner that demonstrates its superiority in relationship to the generally accepted view of the current order. The difficulty of trying to accomplish this part of the task cannot be underestimated. The cross-organizational visionary must, through education or experience, gain the knowledge necessary to weave the new vision into the fabric of other organizations. Attempts are likely to be unsuccessful if the proponent does not have a working knowledge of the culture and worldview of others.

b. Timing. Timing is an issue that deserves special attention. It is important that the action group be involved early and have an opportunity to help shape the vision. Doing so improves "buy in" and increases the inspirational nature of the vision. Releasing the vision outside of the action group should be done selectively as

contextual issues dictate. In the case of supporters, they should be included as much as practicable, again, to improve "buy-in." Blockers, however, should be treated with extreme care. If fiscal or programmatic issues are involved, it is probably best to release information to blocker organizations as late as possible. Doing so earlier only provides more time for the development of criticism and counter-arguments.

> **Channel.** Messages can be conveyed in many ways in the modern world. Television, Internet, books, magazines, e-mail, professional journals, and radio all provide slightly different advantages and disadvantages. Each should be used when available and appropriate. Repetition can increase understanding and is probably best employed by sending the same message though different channels. Finally, channels should be used in both directions to gather feedback and test for understanding.

Vision Execution

The difference between executing a corporate vision or a vision for an individual military unit and a cross-organizational vision is very stark. In the corporate case, after a vision is created the actions of the leaders must be congruent with the vision. It is time to walk-the-walk. Tough decisions must be made and executed. Resources must be reallocated, organizations restructured, and personnel must be hired or trained. Depending upon the magnitude of change, destruction of the old culture may be necessary before a new culture can be built.[25]

In cross-organizational change the visionary, by definition, does not have adequate control to accomplish the necessary tasks. Even if the visionary is also the formal leader of the primary organization affected, say the Chief of Staff of the Air Force in the case of space change, he still must rely on the quality of the vision, its inspirational value, and his personal ability to convince others that his vision is the appropriate path to follow. Even the President of the United States cannot expect to easily execute MNS change.[26] As

[25] Tichy, 186.
[26] Richard Neustadt, *Presidential Power* (New York: John Wiley, 1980) in Rosen, 10.

stated earlier, the absence of centralized executive power appears to be a fundamental factor that sets cross-organizational military innovation apart from other forms of change. The reader is encouraged to keep this factor in mind as the efforts of Mahan and Mitchell are detailed in subsequent chapters.

It is impossible to know if the vision selected is the correct one. The visionary leader should continue to scan the external environment to confirm assumptions. If the underlying assumptions or conditions upon which the vision rests change, the leader should consider modifying the existing vision or, if the changes are significant enough, scrapping the old vision and restarting the process. Feedback is more difficult for military organizations than it is for corporations. Corporations receive near immediate feedback on the basis of sales; military organizations only obtain direct feedback through combat.

SUMMARY

Vision is used to provide a realistic, credible, and attractive bridge to the future. However, most existing literature is focused on accomplishing change within an individual organization where the leader has the authority, broad executive powers, and the desire to change. When attempting to change the American way of war, the contextual variables are different. The change will affect more than one organization, no one leader will have adequate authority to enact the vision, and some organizations will disdain the vision. Therefore, this chapter has modified existing vision constructs to fit the conduct of MNS change. The primary components of a thoughtful creation, well-planned communication, and strongly disciplined execution, remain viable. Emphasis

has been added to ensure the practitioner adjusts for multiple centers of authority and differing worldviews.

In the next two chapters the visionary efforts of Mahan and Mitchell are examined to determine how their visions developed how they were communicated, and how they were executed. These examinations should aid in exposing the challenges associated with leading MNS change and further clarify the roles played by a visionary.

Chapter 3

MAHAN – ACCIDENTAL VISIONARY

It is the portrait -- warts and all -– of a historian, strategist, tactician, philosopher, Episcopalian, theologian, diplomat, imperialist, mercantilist, capitalist, Anglophile, patriot, Republican, racist, Social Darwinist, journalist, polemicist, naval reformer, adviser to presidents and legislators, teacher, academic administrator, social climber, egoist, introvert, swain, husband and father. Mahan remains one of the few military figures in American history whose brain power was his main shield and buckler.

Robert Seager II
Alfred Thayer Mahan

I wish to publish for I am naturally a teacher and would like to increase my audience;

Alfred Thayer Mahan

Neptune was God, Mahan his prophet, and the United States Navy the only true church.

Henry L. Stimson
On Active Sevice

INTRODUCTION

Alfred Thayer Mahan was not a visionary in the sense that he predicted the rise of submarines or the importance of the aircraft, in fact he underestimated the importance of both. Nor does it seem that he set out to be a visionary. Yet, in 1890 he was the visionary for a large, modern, steel US Navy -- a navy conceived to expand American influence around the globe. Through an unusual confluence of events he and his book, *The Influence of Sea Power on History, 1660-1783*, became the focal point of US Naval

expansion. Since then, appropriately or not, the name Alfred Thayer Mahan has became synonymous with the establishment of the modern, steel Navy.

His efforts also serve as the foundation of modern naval strategy and tactics, but these aspects of his work are not the primary focus of the current discussion. After a brief background discussion, this chapter follows the structure established in the previous chapter to analyze the creation, communication, and execution of the vision, often credited to Mahan, but actually the product of many, that led to the creation of the modern US Navy.

BACKGROUND

In order to comprehend fully the confluence of factors and personalities that produced the expansionist naval theory that is frequently attributed to Alfred Thayer Mahan, one must begin at the end of the Civil War. Before the war on land came to an end, the Union Navy prevailed over the Confederate Navy. By the time Robert E. Lee surrendered to Ulysses S. Grant at Appomattox, naval demobilization was underway.[27] The demobilization was dramatic, by the end of 1865 half of the Navy's ships were sold. The Fleet declined from 700 ships in 1865, to 52 in 1870.[28] Erosion continued until the early 1880s.

By 1883 the navy was weak and lethargic. The officer corps lacked professionalism.

> Promotion was based on seniority, and the dullards and indolent, provided they passed occasional examinations of a routine character and were not notoriously immoral, advanced as rapidly as their more capable brothers. Often they went ahead even faster, for many of the leaders of the navy,

[27] Kenneth J. Hagan, *This People's Navy: The Making of American Seapower* (New York: The Free Press, 1991), 176.

[28] E. B. Potter, ed., *Sea Power: A Naval History* (Annapolis, Maryland: Naval Institute Press, 1981), 155.

> especially Rear Admiral David D. Porter, were nostalgic reactionaries, opposing viciously anything in the nature of progressive innovation.[29]

The enlisted force was in even worse condition.

> In some ships only a small part of those enlisted could speak or understand English, and orders had to be re-explained in several languages. Of 111 men on the *Ashuelot*, for example, only nineteen were Americans, and the remainder represented no fewer than nineteen different nationalities. At the same time the *Monocacy's* crew of 105 included nineteen nationalities. These cases were extreme, but a complement over fifty percent foreign was common. Many of these men were deserters and beachcombers who would vanish at every port.[30]

One could say the navy drifted day-to-day. Naval leadership did little to improve conditions and unquestioningly accepted the roles of coastal patrol and commerce raiding.

Americans and their elected officials were not receptive to increasing the size or quality of the Navy. Tradition did not support maintaining a large peacetime military. Most citizens concerned with international diplomatic affairs were comfortable that the European balance of power system, combined with the size of the Atlantic Ocean, provided adequate security. Available funds were spent on rebuilding the South, westward expansion, and the industrialization of the Northeast.

Naval officers eventually recognized their internal problems and also realized the US Navy was incapable of combat against any of the more modern European navies. The formation of the US Naval Institute in 1873 was one of the first signs of the Navy's desire to improve. The Institute encouraged frank discussion concerning the best ways to reform the Navy. While the Institute began to generate some common thoughts on

[29] Donald W. Mitchell, *History of the Modern American Navy: From 1883 through Pearl Harbor* (New York, 1946), 5.
[30] Ibid., 5.

upgrading US Naval capabilities, naval leaders could not move Congress.[31] Mahan, himself, was selected as vice-president of the Institute in 1878.[32]

As the 1880s progressed, new issues replaced southern reconstruction, westward expansion, and industrialization as national priorities. The US felt more confident in its capacity to become a major world actor and less confident that it would not be threatened by a superior European or Asian power. Consequently, Congress authorized the construction of a handful of more modern ships. The authorization bill contained a stipulation that the ships be built with American steel to nurture the advancement of US steel and ship making facilities. Over the long-term, this stipulation enhanced the business community's support for naval expansion and improved the US technology base.

The expansionist vision of Alfred Thayer Mahan must be woven into the context described above. Mahan was born 27 September 1840. He grew up in an academic environment as the son of prominent West Point professor and author Dennis Hart Mahan and his wife Mary Okill Mahan.[33] Dennis Hart Mahan was an intense and successful academician. He graduated first in his class at West Point, spent one tour in Europe studying fortifications, and returned in 1830. In 1838, he was selected as Dean of Faculty and served as such until his death in 1871.[34] He remains one of America's most influential military thinkers. Alfred Thayer Mahan did not credit his influential father with having a great influence on his thinking, but did later say that he had an "inherited

[31] Hagan, 184.
[32] Ibid., 184.
[33] Captain W. D. Puleston, USN, *Mahan* (New Haven, CT: Yale University Press, 1939) 12.
[34] Robert Seager II, *Alfred Thayer Mahan: The Man and His Letters* (Annapolis, Maryland: Naval Institute Press, 1977), 2-3.

aptitude" for academic work.[35] Mahan's skills as an academic and historian were further enhanced by a two year stay with his uncle Milo Mahan, a Professor of Ecclesiastical History at the General Theological Seminary in New York City.[36]

Mahan decided to enter the US Naval Academy in 1856, possibly due to his love of novels about life at sea.[37] While initially opposed to the idea, Dennis Hart Mahan eventually consented and used his influence to help his son gain admission. Secretary of War Jefferson Davis, who had been three years behind the elder Mahan at West Point, made a "special arrangement" and Alfred was admitted as a sophomore. This was the only occasion on record that such a "special arrangement" had been made.[38] During his undergraduate years, Mahan was successful academically but was unpopular among cadets because "he had convinced himself that he was a wholly superior human being – in mind, body, and morality."[39]

Soon after Mahan's graduation, the Civil War began. Mahan spent most of the conflict performing tedious blockade duty. However, in November 1861, Mahan witnessed the closing moments of the action at Port Royal, South Carolina. As it turned out, this was to be the only time in his career he witnessed combat.[40] At the end of the war Mahan found himself back at the Naval Academy serving as an instructor. He was assigned to, then Lt. Commander, later Rear Admiral Stephen B. Luce. Luce, an

[35] Ibid., 144.
[36] Ibid., 10.
[37] Puleston, 17.
[38] Seager, 11-12.
[39] *Ibid*, 31.
[40] Robert Seager II, quoted in James C Bradford, ed., *Admirals of the New Steel Navy: Makers of the American Naval Tradition 1880-1930* (Annapolis, Maryland: Naval Institute Press, 1990), 25-6.

exceptional officer in his own right, had a profound impact on upon Mahan's career and upon his reputation as a scholar.[41]

Mahan's career between his first acquaintance with Luce and his selection to serve at the Naval War College in 1884 was marred by accidents and was generally unrewarding. It was a "dreary succession of antique vessels and underfunded shore installations."[42] This period drained him of his youthful enthusiasm for the sea. By the end, Mahan spent many of his "subsequent waking hours on shore trying to avoid or postpone reassignment to sea duty."[43] The offer to teach at the Naval War College gave him just such an opportunity.

CREATION

In 1884, Captain Luce was searching for an officer to develop lectures on two distinctly different subjects, naval history and naval tactics. When Luce's first choice, Lieutenant Commander Casper F. Goodrich declined, Luce turned to Mahan.[44] Mahan was the commanding officer of the *USS Wachusett*, an obsolete vessel ready for scrap. He received the invitation from Luce and immediately accepted, but due to operational requirements could not leave the *Wachusett* until 1885.[45] Luce then permitted Mahan to stay in New York until required for class in 1886. This year was critical to the formulation of Mahan's lectures. The same lectures that would later form the heart of his widely acclaimed book, *The Influence of Sea Power on History, 1660-1783*.[46]

[41] Puleston, 35.
[42] Bradford, 26.
[43] Ibid., 26.
[44] Seager, 143.
[45] Puleston, 71.
[46] Ibid., 76.

Mahan spent the latter part of 1885 and early 1886 in New York where the public library system provided access to quality resource materials.[47] During this time he corresponded with Luce concerning the content of his lectures. Luce provided high-level guidance while Mahan approached the project with his own bent.[48] Mahan's academic upbringing aided him in researching and developing the lessons. His general understanding of history helped him to decide to focus roughly on the period between the Peace of Westphalia (1648) and the end of the US Revolutionary War. In many ways, this period represented the golden era of wooden sailing sea power and thus helped make his point. Mahan's main point was that "control of the sea was an historic factor which had never been systematically appreciated and expanded."[49] Once expanded, Mahan's work demonstrated that "control of the sea" was a key element in both the outcome of conflict and national economic well being. Of course, to obtain "control of the sea" a nation required sea power and sea power could only be provided by a large and capable fleet. It was through this logical sequence that Mahan's vision became tangible concept. According to this vision, America needed a fleet to be secure and prosperous.

Mahan arrived, along with his lectures, at the Naval War College in 1886. After listening to Mahan present his lectures for the first time, an enthusiastic Luce reportedly rose to his feet and declared that he was seeking a naval Jomini and "He is here and his name is Mahan!"[50] Mahan updated and expanded the lectures over the next several years and finally assembled them in book form at the urging of both his wife and Admiral

[47] Ibid., 74.

[48] The initial letter between Luce and Mahan has been lost, but one can infer from the nature of Mahan's letters to Luce during early 1886 that Luce was clear in his guidance. See letters in Rear Admiral Albert Gleaves, USN, *Life and Letters of Stephen B. Luce Rear Admiral USN* (New York: G.P. Putnam's Sons, 1925), 312-317.

[49] Mahan's words quoted in Bradford, 30-31.

[50] Puleston, 83.

Luce. In 1890, *The Influence of Sea Power on History, 1660-1783*, was published and for the purposes of the present work, Mahan's vision of American naval power was formally established. The following paragraphs further investigate Mahan's vision.

a. Situational Analysis/Stimuli Recognition. The first question to be explored is whether Mahan and Luce were responding to a perceived opportunity, a threat, or a weakness within the Navy. The answer is fairly straightforward. The possibility that Luce and Mahan were responding to a perceived opportunity is unlikely. During the 1880s, the American public was still isolationist and funding for an enhanced Navy did not appear to be forthcoming. A stronger case could be made that they were responding to a threat. Britain, Germany, Japan, and a few others had already started manufacturing coal-powered fighting ships. Some within naval circles, including Luce, believed that only intensive study would produce the appropriate design and mix of ships as well as the appropriate tactics to guide their use in combat. However, many in the US did not feel threatened by foreign navies during the 1880s because they remained convinced the balance of power system in Europe and the size of the oceans provided adequate protection. Even if an enemy could reach US shores, they could never do so in a force that could not be repelled by a rapidly expanded US army. The final choice, viewing Mahan's vision as an effort to fix an internal weakness of the Navy, is the most credible explanation. Luce began the process by establishing the Naval War College. He took this step because he felt that professionalism within the Navy was lacking and needed to be improved. Without Luce's efforts to establish the Naval War College, Mahan would not have written his book. Mahan himself gave the credit to Luce.

> Whatever usefulness the book may be found to have, the merit is ultimately due to yourself, but for whose initiative it would never have

> been undertaken. But for the impulse you gave, I should still have been contented to drift on, smitten with the indifference to the higher military considerations, which is too common in the service.[51]

Thus, it seems reasonable to conclude that the Mahanian vision was foremost the result of an effort to improve professional education within the Navy and to a lesser degree the response to a threat posed by more advanced navies around the world.

Since Luce and Mahan conspired primarily to influence the members of their own organization, it is not likely that they hoped for much broader appeal in Mahan's book. As a matter of fact, Mahan recognized this in a letter to Luce. "It is not necessarily, nor on the face, an attractive subject to the public; they must be led to water ere they will drink."[52] Ironically, Mahan's book eventually fulfilled at least two functions. First, it served to educate officers in the strategy and tactics of naval warfare even if it did not do so in a completely effective manner. Second, and central to the current study, it justified American naval development away from commerce raiding and coastal defense toward fleet tactics. Fleet operations were synonymous with American forward presence and the protection/guarantee of American trade. Fleet operations required a larger and more modern fleet.

b. Analyze the situation (blockers/supporters). What attitudes were prevalent among other key players? What groups were likely to be supporters or blockers of the Mahanian vision? The main groups to consider are the US public, Congress, the US Army, and fellow Naval Officers.

US Public. It is difficult to accurately describe the mood of the US public, given that at any one time, it is possible to find pockets of support and resistance to almost any

[51] Letter from Mahan to Luce, May 7th, 1890 quoted in Gleaves, 270.
[52] Gleaves, 270.

issue. However, as stated earlier, in 1890 the US public was in a state of transition. During the 1880s, the gestation period for Mahan's vision, public opinion was marked by isolationism and fiscal conservatism regarding military spending. However, as southern reconstruction ended and the western frontier closed, the industrialized Northeast produced excess goods. Those who produced these excess goods cried out for markets. Simultaneously, the success of western expansion combined with economic growth made many American's feel that America was becoming strong enough to become a major international actor. Some felt the US should begin to participate in the worldwide competition for markets and coaling stations. There was even a faction that supported the establishment of US colonies, even though most Americans disdained the idea because of the negative legacy of British imperialism in American history. Still, all major European powers had colonies, Social Darwinism was gaining popularity, and it was internationally fashionable to be a colonial power. A good indication of the mood of the country can be found in President Benjamin Harrison's 1889 Inaugural address:

> It must not be assumed, however, that our interests are so exclusively American that our entire inattention to any events that may transpire elsewhere can be taken for granted. Our citizens domiciled for purposes of trade in all countries and in many of the islands of the sea demand and will have our adequate care in their personal and commercial rights. The necessities of our Navy require convenient coaling stations and dock and harbor privileges. These and other trading privileges we will feel free to obtain only by means that do not in any degree partake of coercion, however feeble the government from which we ask such concessions. But having fairly obtained them by methods and for purposes entirely consistent with the most friendly disposition toward all other powers, our consent will be necessary to any modification or impairment of the concession. … The construction of a sufficient number of modern war ships and of their necessary armament should progress as rapidly as is consistent with care and perfection in plans and workmanship. The spirit, courage, and skill of our naval officers and seamen have many times in our history given to weak ships and inefficient guns a rating greatly beyond that of the naval list. That they will again do so upon occasion I do

> not doubt; but they ought not, by premeditation or neglect, to be left to the risks and exigencies of an unequal combat. We should encourage the establishment of American steamship lines. The exchanges of commerce demand stated, reliable, and rapid means of communication, and until these are provided the development of our trade with the States lying south of us is impossible.[53]

Thus, by 1890 an increasingly large number of Americans believed the time had come to break with the country's tradition of isolationism and adopt a policy of open imperialism instead. This new imperialist mindset was founded on strategic, economic, religious, and emotional grounds.[54]

Congress. The actions of the US Congress often reflect the will of the majority of the US public, although if a strong public mandate is not evident, Congressional stances can be mystifying. It is exceptionally important to analyze congressional support for military change separately from the public due to the overwhelming role Congress plays in the funding process. In the decade prior to the publication of Mahan's book, Congressional relations were characterized by bitter partisan disputes. Fortunately for the Navy, members of Congress from both parties supported moderate naval construction after 1883.[55] Bipartisan Congressional support existed for several reasons. First, shipbuilding helped develop the steel and related industries. Second, shipbuilding provided jobs in many districts. Finally, strengthening the Navy made sense in a world that seemed increasingly competitive and hostile.

The US Army. For the modern reader, it is reasonable to expect that the strongest opposition to naval expansion might have come from the US Army. In fact, the Army did very little to block expending scarce defense funding on new naval ships. There were

[53] Benjamin Harrison, "Inaugural Address," 4 March 1889, *Bartleby.com*, on-line, 17 December 00.

[54] Christopher Chant, *The Military History of the United States: Border Wars and Foreign Excursions* (New York: Marshall Cavendish, 1992), 6.

several reasons why the Army did not aggressively contest increased naval spending. To begin, the Army was unpopular because of the brutality of the Civil War and the Army's role in Reconstruction left psychological scars on a significant segment of the American population. It was also under constant attack for suppressing labor disputes and for fighting Indians on the frontier.[56] Many in both the military and government thought that the Army might not be maintained after the Indian uprisings in the West were quelled.[57] Additionally, the Army had a more difficult time convincing the public that it was severely affected by the technological developments that transpired during this period. It was clear to see that Britain, Germany, and Japan were building ships that were far superior to those in the US Navy's inventory, but an equivalent gap was not evident in army weapons.[58] Finally, the Army lacked quality leadership at the top. This weakness of leadership created a weakly focused institution. In fact, the major mission for the US Army in 1891 was coastal defense. Coastal defense was a popular cause because of long coastlines and because funding could be easily divided between the coastal vessels for the Navy and shore batteries for the Army.[59] In summary, the Army did not oppose the naval build-up because of its own unpopularity and lack of organizational focus.

US Navy. While the Army's lack of opposition to a naval build-up may surprise the modern reader, the response of officers within the Navy will not. Officers within the Navy were quick to line up behind any line of reasoning that would result in more and better ships. However, this had not always been the case. The Mahanian vision grew

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[55] Donald W. Mitchell, *History of the Modern American Navy* (New York: Alfred A Knopf, 1946), 14.
[56] Manfred F. Boemeke, Roger Chickering, and Stif Forster, eds., *Anticipating Total War* (Washington DC: German Historical Institute, 1999), 71.
[57] Edward M.Coffman, *The Old Army* (New York: Oxford University Press, 1986), 286.
[58] Boemeke, 71.
[59] Hagan, 176.

slowly after the *Virginius* crisis of 1873 resulted in calls for a "new navy."[60] The founding of the Naval Institute in 1874 provides further evidence of a Naval officer corps desirous of change.[61] However, even during these early days of reassessment, there were some naval officers who clung to the comfort of a navy dominated by sailing ships instead of embracing steam power. These older officers did not believe that steam was adequately reliable or economical. They also found the smoke and noise offensive to their traditional notions of life at sea. This group initially believed that "the United States must rely principally on commerce raiding by fast, independently operating cruisers constructed of steel frames and wood sheathing."[62] Under this concept, the US could protect its own ports from invasion and destroy enough enemy shipping to bring about an end to any war.[63] By the time Mahan printed his book, the modern ships developed by European powers made this approach to US security obsolete. Thus, by 1890, nearly every naval officer was eager to be associated with the "new navy."[64] Even if only a few naval officers valued the study of naval history, as advocated by Mahan and Luce, most fully backed the conclusion that America needed a much larger navy.

c. Obstacles/Constraints. No major obstacles faced the naval reformers. There were two minor obstacles that bear mentioning; Congress and technology. Congress was only willing to build-up the Navy so fast. Legislators were mostly supportive of a larger Navy, but there was some disagreement about how much funding to allot to this task. As for technology, the US needed to develop or buy the engineering, fabrication, and

[60] The *Virginius* was a gun running ship that was taking arms to revolutionaries in Cuba. The Spanish Navy captured it and executed 49 of the crew. The incident led to a war scare and the assembly of the US fleet. The issue was diplomatically diffused but vividly demonstrated that the US Navy was woefully inadequate to protect even minor US interests. Hagan, 184.

[61] Ibid., 180.

[62] Ibid., 179.

[63] Ibid., 179. Referring to the beliefs of Admiral David Dixon Porter.

construction techniques necessary for modern shipbuilding and most of these were already in place by 1890.

d. Develop Alternate Visions. Historically speaking, it would be inaccurate to say that Mahan or other members of the "new navy" movement considered alternate visions as described in modern vision theory. What actually transpired was more a process of natural selection. Professional discussions and international events over the two decades prior to Mahan's writing influenced his primary thesis. Legislators, important American businessmen, and US Naval officers were convinced America should play a more active role in the world and Mahan explained how this could happen.

e. Test Visions Against Alternate Futures. As just described, the actual testing of the US Naval vision came through professional articles printed in the newly established US Naval Institute's *Proceedings* and through real world events. The US Naval Institute encouraged officers, young and old to submit their viewpoints on important issues. It was a forum in which, "free expression took precedence over gold braid."[65] Actual events, such as the *Virginius* crisis, clearly demonstrated the weakness of the US Navy. Other developments, culminating in the 1884 Congress of Berlin, signaled a new age of European imperialism that would close markets previously open to American goods and demonstrated the need to act.[66]

f. Select the Most Appropriate Vision. The appropriate vision for the US Navy gradually emerged from the drive for improved professionalism that began in 1883. This

[64] Gleaves, 173.
[65] Hagan, 184
[66] Ibid., 187.

vision was generally referred to as the "new navy."[67] Subsequent actions were merely modifications or magnifications of portions of this vision in response to changes in the domestic mindset, the international situation, technology, or the understanding of naval tactics.

COMMUNICATION

If it is true that Mahan never intended to promote a vision for a larger US Navy, one must ask, how then did his book come to serve this function? A close examination of the manner in which it was communicated provides several interesting suggestions.

Content. Within the Navy, the establishment of the Naval War College and the use of Mahan's message in a lecture format provided one of the most critical venues for transmitting the new vision. Presenting the vision to naval officers in a verbal format established the common foundation of knowledge among them. Mahan's lectures remained a technical point of reference among naval officers for decades. As an additional benefit, the lectures opened two-way communications between Mahan and those who would execute the vision in the future. The give and take that occurred among professional naval officers at the Naval War College resulted in changes/improvements to the vision but most importantly it spread the message to many rank and file naval officers.

Ironically, no one deserves greater credit for conveying the Mahanian vision to groups outside the navy than the publisher of Mahan's book. When the publisher requested he add the first chapter to make the work more popular, he transformed

[67] The term 'new navy" can be associated with Secretary of the Navy William H. Hunt who was removed from his position after requesting too many ships. His request was trimmed by his replacement and resulted in the construction of the first ships of the "new navy." Potter, 160.

Mahan's book from a dry, technical treatise into a popular sensation.[68] One of Mahan's biographers says,

> Ironically, however, the section of *The Influence of Sea Power Upon History* that generated the greatest comment and speculation among American and British readers and reviewers was not the five-sixths of the book that dealt more or less with straight history and sought to document the dominant role of sea power thereon, but the one-sixth that was tacked on to the manuscript at the last minute. This was an introductory chapter titled "Elements of Sea Power." A polemical, controversial essay which re-surveyed ground tilled at various times and in various ways by Shuflet, Luce, Whitthorne, David, Seeley, and many others.[69]

Another says, "This section of the book has received far more attention from commentators than it deserves."[70]

The British were the first to accept and praise the book. The story it told was largely the story of British greatness, a glorification of the golden era of Britain. Mahan was a hero in the UK, greeted by the monarch and feted by nobility. The book also received attention in Germany. The Germans found Mahan appealing because, like the US, Mahan's book provided the Kaiser with apparent historical support for a larger navy. The Kaiser is said to have "devoured" the book and he even tried to "learn [it] by heart." He also ordered a copy be kept on each ship in the German fleet.[71] When reports of this international acclaim made it back to the US, they spawned greater American interest and admiration for Mahan and the vision.

In the US, prominent citizens began to take notice of his effort and they too began to line up to congratulate Mahan on his work. Perhaps the most influential citizen to speak out in praise of Mahan was the future President, Teddy Roosevelt. Roosevelt wrote,

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[68] Bradford, 38.
[69] Seager, 205.
[70] Philip A. Crowl, "Alfred Thayer Mahan: The Naval Historian," cited in Peter Paret, ed*., Makers of Modern Strategy* (Princeton, N.J.: Princeton University Press, 1986), 463.
[71] Robert L. O'Connell, *Sacred Vessels* (San Francisco, California: Westview Press, 1991), 68.

> Captain Mahan has written distinctly the best and most important, and also by far the most interesting book on naval history which has long been produced on either side of the water for many a long year …[avoiding] the shortcomings which made the average military man an exasperatingly incompetent historian.[72]

Roosevelt would later play a key role in the execution of the Mahanian vision. It is impossible to tell the degree to which the addition of the first chapter popularized Mahan's book, but it seems reasonable to consider it a very significant factor.

Another item of particular interest to the current thesis is Mahan's obvious effort to avoid aggravating other segments of society by not exaggerating the importance of sea power. While he clearly worked to point out that sea power was a national necessity he stated that it was "but one link in a chain" of national greatness.[73] Presenting the argument in this fashion ensured he did not make unnecessary enemies by belittling the contributions of others, specifically in industry and the Army.

Timing. There is no evidence to suggest Mahan considered timing in developing or disseminating his vision except for the deadlines required by the Naval War College. However, his timing probably could not have been more fortuitous. As explained earlier, the general mood of the country was shifting from internal growth to external expansion. *The Influence of Sea Power* came as a spark to dry tinder. Additionally, the US Army was weakened and in disarray and was unable to challenge naval expansion in any meaningful way.

Channel. Communicating the Mahanian vision among naval officers was not successful because of simplicity. In fact, Mahan's lectures were originally intended for a naval audience as instructional material and were very technical. Mahan initially insisted

[72] Theodore Roosevelt quoted in Puleston, 110.
[73] Puleston, 100.

on reading the lectures verbatim for fear that he would omit important details. This process was not likely pleasurable for his students. Fortunately, the underlying message that a strong modern Navy is essential for American well being was simple and easy to remember. So, too, was the political and military logic that supported this conclusion. The complex part, was how to obtain and operate a strong modern Navy, but one did not need to master the nuances of naval tactics to support a stronger Navy. Thus, even if students left without a better understanding of naval warfare, they could still articulate support for a bigger navy.

Mahan's fame opened the avenue of written communications between him and the US public and elected officials. After the publication of *The Influence of Sea Power*, Mahan wrote prolifically on naval related subjects. In all, his writings included 20 books and 137 articles.[74] After he retired from active duty his writing provided adequate income for him and his family to continue to live comfortably. The written word was the primary venue for the transmission of the Mahanian vision.

EXECUTION

Alfred Thayer Mahan continued to influence naval affairs through the use of his pen until his death in 1914, but he did not directly oversee the execution of his vision. He was a historian, not a combat leader of the United States Navy. He did not have the authority nor the leadership skills required to turn the vision eloquently described in *The Influence of Sea Power upon History* into actual sea power. Other men had to take the necessary changes to ensure that hardware, personnel, and tactics were available in adequate numbers when America faced its next war. The next war came in 1898 and the

US Navy was ready. The success of that endeavor and the continuing spread of the vision eventually lead to a modification of the vision from "new navy" to "the greatest Navy in the World."[75] The tactics eventually underwent modification but the vision proved successful beyond the wildest dreams of those who began the movement after the *Virginius* crisis of 1873.

This is not to say Mahan played no role in the execution of his vision. Indirectly, his vision continued to inspire and motivate naval officers for decades. His portrayal of sea power was seen as credible and attractive, and with every ship that came from American shipyards it became a little more realistic.

In the end, it seems Mahan's greatest contribution was his ability to weave the need for a new navy into the larger context of US national security. Some of his biographers have concluded the following:

> He was the man who, between 1890 and 1914, did as much as or more than any other American to introduce his countrymen to new ways of looking at the US Navy's role in American foreign policy decision making, the nations proper role in world affairs, and the strategic implications and dimensions of national security.[76]
>
> No other single person has so directly and profoundly influenced the theory of sea power and naval strategy as Alfred Thayer Mahan. He precipitated and guided a long-pending revolution in American naval policy.[77]

Theodore Roosevelt eulogized him by saying he was the "only great naval writer who also possessed in international matters the mind of a statesman of the first class."[78] Thus,

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[74] Seager, xi.
[75] Potter, 226.
[76] Seager in Bradford, 26.
[77] Margaret Sprout quoted in Paret, 469.
[78] Theodore Roosevelt quoted in Richard W. Turk, *The Ambiguous Relationship: Theodore Roosevelt and Alfred Thayer Mahan* (New York: Greenwood Press, 1987), 2.

while many other naval officers labored and hoped for a larger navy, Alfred Thayer Mahan convinced the nation it needed a navy to properly fulfill its place in world affairs.

CONCLUSION

In terms of being a visionary, Alfred Thayer Mahan was mostly lucky and to some degree good. His success, as he himself would attest, was largely due to Rear Admiral Stephen B. Luce. Luce lobbied for the establishment of the Naval War College, hired Mahan to replace him, and provided direction to Mahan concerning the appropriate direction of his lectures. These lectures later became the foundation of the Mahan's seminal book, *The Influence of Sea Power upon History, 1660-1783*. Additionally, Mahan owes a great debt to his publisher for insisting that he inject the first chapter on the elements of sea power. Without this chapter, the book retains its form as a military lecture and is much less appealing to people outside the military. Thus, without Luce, it is doubtful the book would have been written and without the first chapter it is unlikely the book would have been widely read outside military circles.

But the fact remains, it was widely read outside military circles and had a tremendous impact on the audience. Mahan was a good writer and produced a work that many wanted to read. He was fortunate that his book was written at a time when many Americans were starting to look favorably on expanded trade, the possibility of colonies, and the role of the Navy in providing and protecting both of these.

It remains questionable whether it is justifiable to consider Mahan a visionary. By his own admission, this was not his intent. However, the effect *The Influence of Sea Power* produced, would have been the envy of any visionary who set out with the vision to make America the world's greatest sea power. *The Influence of Sea Power*, whether

intended as such or not, provided naval officers and influential Americans with the justification to view a larger navy as a realistic, credible, and attractive future for America.

Viewing Mahan as a visionary serves as an interesting case study for MNS change and makes several observations possible. First, the vision process for the "new navy" actually transpired over a period of over 25 years (1873-1898) and was an iterative process. Many of the arguments put forth by Mahan had been slowly refined over time. Mahan gained fame because he packaged the vision within a historical context and communicated it to audiences who wanted to believe it. Second, even though the development of a much larger navy represented a cross-organizational change because it reduced money available for the US Army and affected diplomatic and economic relations, it did not face strong opposition from any specific governmental department. Thus, this case would seem to suggest that MNS change can be successful under the appropriate conditions. Finally, it is difficult to closely study the experience of Mahan and not develop the impression that under some conditions the US system of government may spontaneously create a visionary. Mahan was a poor sailor, disliked by his peers, and motivated by others to develop the lessons that led to his book. He was a highly unlikely candidate to become recognized America's premier naval mind. Yet, an unusual confluence of events propelled him to play a larger than life role in creating America's "new navy."

Chapter 4

MITCHELL – UNWELCOME VISIONARY

Had we not had the bulwark of the European Allies to work behind during the Great War, we would have had practically no aviation on the front.

Brigadier General William "Billy" Mitchell
Memoirs of World War I

Sometimes an honest man is caught in such a coil of circumstance that whatever he does is bound to be the wrong thing.

Gerald W. Johnson
My Brother Bill

Indeed every age has its crusaders – men like Mitchell whose relentless insistence on the correctness of their beliefs ultimately destroys them.

Major Alfred F. Hurley
Billy Mitchell

INTRODUCTION

Brigadier General William "Billy" Mitchell was a visionary. His experiences in World War I provided him with an understanding of the horrors of trench warfare and a firm grasp of the promise of aviation. Others did not share his experience or his conclusions. Fate put Brigadier General William "Billy" Mitchell on the horns of a dilemma. Personal experience left him convinced the next time America faced a large-scale war a strong air force would be necessary to ensure victory. He could choose to say little and see US aviation improve marginally or he could cry out and take the case to the American public. One path led to the possibility of personal advancement and acceptance within the military bureaucracy and the other led to pariah status and constant

political combat. He chose combat. Was this the right choice? Could he have taken a more effective approach?

Thoroughly understanding Billy Mitchell is a difficult but important issue. Ultimately, one must interpret his actions through the lens of his personality. If one is inclined to see him as a spoiled, pompous, attention seeker, it is easy to dismiss his efforts as an egotistical power grab. On the other hand, if Mitchell is viewed as an intelligent, energetic, open-minded adventurer, his actions can be viewed as a courageous attempt to reform a stagnated bureaucracy. Interpreting Mitchell is to a large degree a personal adventure. To do so more completely, the reader should read more of the available literature.[79] This chapter lays out Mitchell's vision for military aviation and describes the environments in which it was created, communicated, and executed.

BACKGROUND

Billy Mitchell was born on 29 December 1879 in Nice, France. His parents, John Lendrum Mitchell and Harriet Danforth Becker Mitchell, were American citizens in France on a temporary visit. The Mitchell family was wealthy and had strong political

[79] Early accounts of Mitchell's life are heavily biased toward painting him as a martyr but do provide a sense of the period. See, Emile Gauvreau and Lester Cohen, *Billy Mitchell: Founder of Our Air Force and Prophet Without Honor* (New York: E.P. Dutton & Company, 1942); Isaac Don Levine, *Mitchell: Pioneer of Air Power* (New York: Duell, Sloan, and Pearce, 1943); Ruth Mitchell, *My Brother Bill*, (New York: Harcourt Brace and Company, 1953). Later accounts are more balanced. See, Major Alfred F. Hurley, *Billy Mitchell: Crusader for Air Power* (New York: Franklin Watts, Inc., 1964); David MacIsaac, "Voices from the Central Blue: The Air Power Theorists," in Peter Paret ed., *Makers of Modern Strategy: From Machiavelli to the Nuclear Age* (Princeton, N.J.: Princeton University Press, 1986).

connections. Billy's grandfather, Alexander Mitchell, was a millionaire banker and railroad baron. He was also a significant force in Democratic national and Wisconsin state politics. Billy's father capitalized his father's success by becoming a United States Senator himself. John Lendrum Mitchell was one of the few Senators to vote against the resolution for war against Spain in 1898. While his father voted against the war, Billy decided he wanted to fight. Though he was already a junior at Columbian University (now George Washington), he dropped out to pursue action and adventure.[80] He enlisted as a private in the 1st Wisconsin regiment, the successor to the unit in which his father had served during the Civil War.[81] Within three weeks, and with the assistance of his father, Billy Mitchell was commissioned as a second lieutenant in the volunteer Signal Company.[82] Mitchell was unable to go to Cuba until after the war had ended, but his youthful exuberance got him started on a 28 year career that would rock the foundation of existing American military thought.

VISION CREATION

Billy Mitchell's vision was forged over the French trenches during World War I (WW I), but to fully appreciate the process that gave birth to the Mitchell vision, one must begin much earlier. Billy Mitchell was not always an aviation fanatic. Of course, since the Wright Brothers did not make the first heavier than air flight until 17 December 1903 and the Army did not purchase an aircraft until 1908, it would have been impossible

[80] Major Alfred F. Hurley, *Billy Mitchell: Crusader for Air Power* (New York: Franklin Watts, Inc., 1964), 1-5.

[81] Isaac Don Levine, *Mitchell: Pioneer of Air Power* (New York: Duell, Sloan, and Pearce, 1943), 5.

for Mitchell to be officially involved with aircraft any earlier than 1908.[83] Yet, since aviation was originally assigned to the Signal Corps, it is reasonable that Mitchell was aware of aviation progress even if he was not directly involved. In 1909, Mitchell was fresh out of Staff College and made an attempt to transfer to the cavalry branch.[84] The attempt was denied but is useful in that it demonstrates Mitchell was not yet infatuated with airpower. It is also interesting because it is an event that can be interpreted in various ways. Mitchell could have been motivated by a lust for increased rank. Or, it is equally plausible that he was motivated by the desire for combat leadership and work on horseback. Taken in the context of Mitchell's personality and other actions, it is likely that a little of both explanations are true. Even as late as August 1913, when the earliest attempt was made to put aviation in an organization of its own, Mitchell did not advocate an independent air force. On the contrary, his statements to the Military Affairs Committee of the House of Representatives were in line with conventional Signal Corps thinking at the time. He said, "today it would be a mistake to start a separate air corps" and "the offensive value of this thing has yet to be proved."[85] Over the next several years his opinions would change dramatically.

In 1915, Mitchell became directly involved with aviation matters when he worked on a War Department survey of America's aviation needs for the Wilson administration. The resulting report was unsigned but contained an accurate picture of aviation developments in the US and abroad. While it remained faithful to the view of aviation as

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[82] Personal letter between Mitchell and his father quoted in Hurley, 3.

[83] Levine, 79.

[84] Hurley, 13.

[85] Levine, 83 and Hurley, 17.

an Army support function aligned under the Signal Corps, it did explain that aircraft could serve a useful offensive role. Based on the military utility of aircraft, the report recommended and urgent increase in Army aviation beyond its current strength of 46 officers, 243 enlisted men, and 23 aircraft of varying types.[86] This report, combined with the dismal results of the aviation section's attempt to aid Brigadier General Pershing's pursuit of Pancho Villa in the spring of 1916, led Congress to appropriate an immediate allocation of $500,000, quickly followed by $13,281,666. The latter total was nine times the total of all funds allotted for Army aviation to date.[87] Of course, the primary motivation for Congressional action was the war in Europe. For Mitchell, it is likely that these actions convinced him aviation was a rising star and it could provide him with both a ride to the top and great adventure.

In the fall of 1916, after 18 years of military service, Mitchell started flight instruction at his own expense.[88] This training provided him with enough expertise to be assigned by the War Department as an aeronautical observer in Europe. Mitchell left the US on 19 March 1917. Two weeks later, on 2 April 1917, President Wilson asked Congress to declare war on Germany and Billy Mitchell was in the right place at the right time. He immediately went to work investigating the status aeronautical warfare among the Allied powers and this process laid the foundation for a vision completed by experiences over the next 17 months.

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[86] Hurley, 19-20.

[87] "Pershing's aircraft were only training ships, not suited for field service. They simply fell apart. Their wooden propellers cracked in the dry heat of the southwest and their engines could not perform efficiently over the mountainous terrain." Hurley, 20.

[88] Ibid., 21.

To prepare himself for aviation duty with the Allies, Mitchell took "an intensive course in aeronautics taught by top allied airmen. What they had to say and even more, what they were doing, converted him to a theory of air power still unknown and still unappreciated in the United States."[89] After making some preliminary administrative arrangements for establishing aviation support for the war effort, Mitchell visited both French and British units at the front.

When visiting French combatants, Mitchell did not confine himself to aviation units; he observed the entire operation. The wasteful carnage he witnessed made a lasting impression.

> What struck me most forcibly was the utter helplessness of the infantry when attacking over open ground, against modern machine guns and cannon. Neither side had yet developed a system which would protect the individual foot soldier, so with him it was simply a case of being sacrificed for an infinitesimal gain, as an advance of a mile or two into those elaborately entrenched positions did not mean anything.[90]

Later Mitchell added,

> The men in the infantry regiments knew all these things full well and talked a great deal about the utter futility of this kind of war. They saw no alternative, however, and felt they must keep it up or be defeated. Everyone from the humblest private up seemed to feel that the air service was going to be the one thing that would bring the war to a speedy close when they got great numbers of new and more efficient planes.[91]

Organizationally, Mitchell observed that the French kept observation units under the local control of individual regiments and divisions, but they also formed concentrations of hundreds of fighters and bombers referred to as *aviation de combat.* French aviators liked to compare the role of *aviation de combat* with the one Marshal Murat and his

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[89] Ibid., 22.

[90] William Mitchell, *Memoirs of World War I: From Start to Finish of Our Greatest War* (1928; reprint, New York: Random House, 1960), 46.

[91] Ibid., 46.

famous cuirassiers played under Napoleon. These aviators also dreamed of the possibility of deep raids into German territory.[92]

Soon after his visit to the French front, Mitchell visited the British front lines. It was here that he first met and was influenced by General Trenchard. In Mitchell's words, "His judgement inspired my immediate confidence and his whole personality my deep respect, and we became fast friends at once. He was really the father of the British fighting aviation."[93] Trenchard provided Mitchell with an explanation of his entire operation as well as the logic and tactics that supported it. First in Trenchard's mind, aircraft needed to act offensively. By acting offensively, the opponent was forced to suffer the damage of bombardment and the psychological impact to his troops. The aircraft the enemy held back for defense could not perform effective offensive operations and were only marginally successful for interception operations since radar had not yet been invented. Second, Trenchard explained that he was providing the army the minimum number of airplanes required for their "domestic use" and had been trying, with limited success, to build a surplus of aircraft to work independently of ground forces. Ideally, Trenchard envisioned aircraft capable of destroying all of the means of supply, subsistence, and replacement. All of these things could be accomplished if Great Britain could be convinced to build the planes. Finally, Trenchard stated that the division of aviation in Britain between the Army and the Navy was not working. The Army was responsible for air above ground, while the Navy was responsible for air above the water. When the Germans chose to fly across the English Channel to bomb targets in Britain, the Navy could not launch aircraft quickly enough to intercept them before they reached the

[92] Hurley, 24.

[93] Mitchell, *Memoirs*, 104.

British Isles and the Army was could not generate sorties before the Germans were back over the English Channel. Thus, Mitchell reported, "The only way to handle air power, in Trenchard's opinion, was to unify it all under one command."[94]

The German air force also indirectly provided instruction to Mitchell in his first few months in France. Mitchell heard of their tactics from the Allies and inspected downed German aircraft. He concluded that the Germans were well ahead of the United States in both areas.

Soon General Pershing came to France to head the American Expeditionary Forces. Pershing assigned Mitchell as Commander of US Air Forces in the zone of advance; essentially this assignment put Mitchell in direct command of all US combat air operations. He kept this position, though under different titles, for the remainder of the war. General Pershing approved of his performance and personally expressed this sentiment on numerous occasions.[95] Mitchell's actual combat experience reinforced the lessons he had learned early on from the Allies. By the end of the war, Mitchell's vision solidified. America needed both strong commercial and military aviation. Military aviation needed bomber, pursuit, and attack aircraft and, most of all, it needed independent, co-equal status with the army and navy. It also needed to be led by an airman.

Mitchell formally proclaimed his vision in 1921 with the publication of, *Our Air Force: The Keystone of National Defense*. In this book he states, "The first thing that the United States should do is to establish a Department of Aeronautics, specially charged

[94] Ibid., 106-11.

[95] Hurley, 28-34.

with the development of all matters relating to the air."[96] His proposed department would have three divisions: an air force co-equal to the Army and the Navy, a Division of Civil Aeronautics, and a Supply Division. The content of this book is heavily dependent upon his WW I experience and Mitchell emphasizes this in many places. Most appropriately he says,

> For the formation of any new department, experience is the surest guide to its proper organization; and in suggesting the matters that I have mentioned above, the experience that we have obtained so far, and that of all the European countries, has been taken into consideration.[97]

Based on this background, it is now appropriate to begin the structured examination of Mitchell's vision.

a. Situational Analysis/Stimuli Recognition. As Billy Mitchell's vision formed during the Great War, it is probable he viewed an independent air force as a response to opportunity, threat, and internal weakness. In terms of ranking these factors, one may reasonably conclude that his main motivation was equally based on opportunity and threat. There was an opportunity in terms of time. In the aftermath of the Great War, a common view held that another war would not occur for at least a decade. Mitchell, aware of the amount of technological development required before his vision could be realized, may have felt this hiatus provided the opportunity the US needed to catch up in aviation. It is equally possible that Mitchell was responding to a perceived threat. Mitchell often expressed the belief that further conflicts were inevitable. Depending

[96] William Mitchell, *Our Air Force: The Keystone of National Defense*, (New York: E. P. Dutton & Company, 1921), 199.
[97] Mitchell, *Our Air Force*, 215.

upon how quickly the next war came, the US would not prevail in the air if the country did not start preparing quickly. Finally, it is also possible that Mitchell's vision was a response to an internal problem. Although this possibility is not as prominent as those based on opportunity and threat, it is still potentially valid because later in his career he was motivated by shortcomings he perceived within the Army.

The threat to America and American forces was very real in Billy Mitchell's mind. First, enemy aviation in the future would prohibit the use of armies or navies unless the US first had control of the air. "No navies can operate on the seas, nor armies on the land, until air forces have first attained a decision against the opposing air forces."[98] Mitchell did not limit this threat to European nations. He also made specific reference to Japan as a possible threat. Second, he realized the advent of the aircraft had caused the world to shrink. He feared the direct harm that could be brought against US cities if an air force was not available to defend them; "The personnel of entire cities - men, women and children - can be destroyed by gas attacks from the air."[99] Finally, Mitchell viewed a lack of civil aviation as a threat to our prosperity as a nation. He likened aviation to our merchant marine and did not want to see post WW I aviation decline as the US merchant marine did following the Civil War.[100]

Mitchell viewed a Department of Aeronautics as an opportunity to capitalize on progress made during the Great War. The war precipitated the need for qualified aviators and resulted in the training of nearly 15,000 flying officers and a substantial increase in America's aeronautical industrial base. If the government continued reductions as

[98] Ibid., xix.

[99] Ibid., xxiii.

aggressively as it did between the end of the war and the publication of Mitchell's book in 1921, he felt that both the pilots and the industrial base would be lost. Both would be very costly and time-consuming to re-establish.[101] Commercial expansion of US aviation was another opportunity available in 1921. Mitchell believed that commerce and development would improve throughout the US if airways were developed to operate aircraft more efficiently. Further commercial development was essential to further military development. Of course, if aviation grew rapidly, there would also personal opportunities for Mitchell and other airmen, both inside the military and out. However, considering Mitchell's perception of the threats and opportunities of the time, it is possible too much emphasis has been given to Mitchell's desire for personal advancement. This subject will be discussed in greater detail as this chapter progresses.

Was there an internal problem that Mitchell's vision was designed to fix? The evaluation of this final stimulus depends on how "internal" is defined. For airpower in 1921 internal could mean within the Army Air Service, within the Army, or within the United States. In each case, it is probable that Mitchell would have answered that his vision was necessary to fix internal problems in each of these areas.

Within the Air Service, resources and personnel disbanded at an alarming rate. Those who remained were enthusiastic and had a good understanding of what needed to be accomplished, but the Army Air Service had no authority to take the necessary actions. The Army Air Service commander, Major General Charles C. Menoher, did not support rapid air expansion as advocated by Mitchell and his followers. According to

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[100] Ibid., xxv.

[101] Ibid., xviii.

Mitchell, Menoher was not a pilot and did not understand or was unconvinced of the important role that aviation would play in future wars.

If "internal" is interpreted to mean "internal to the US Army" a similar set of problems arose. Most importantly, the existing branches viewed aviation only in a supporting role and did not endorse its establishment as a branch co-equal with infantry, artillery, and cavalry. The fact that no aviators possessed sufficient rank to lead the Air Service provided conventional Army officers with a convenient reason to advocate that aviation be led by someone other than an airman. By having an outsider in charge, conventional minded officers could ensure aviation remained focused on supporting ground forces rather than, in their view, wasting precious funding in the attempt to prove that aviation could act independently. From Mitchell's viewpoint, this approach was totally unsatisfactory. If aviation remained a subordinate function of the existing branches, it would never have the opportunity to grow into the force he knew it could. In short, the internal problem within the Army was that conventional officers did not share Mitchell's view of the promise of aviation.

In the final case, where "internal" is defined as within the United States, the problems were even more serious. In addition to the problems described above, which were the military subset of America's overall aviation problems, the US faced ignorance concerning aviation matters within the population and elected officials. American's tended to be enthusiastic about the novelty of flight, but were suspicious of its commercial and military viability. Mitchell realized that healthy military aviation would require a healthy civilian infrastructure (airports, meteorological services, navigation aids, etc.) as well as an industrial complex capable of producing good aircraft. These

civilian components were only likely to occur if someone was given the authority to pursue them and could generate the public support necessary.

In sum, regardless of how "internal" is sliced, the problem boiled down to the fact that nobody with a first-hand knowledge of aviation's potential had the authority or resources to respond to the threats and capitalize on the opportunities.

b. Analyze the situation (blockers/supporters). Since Billy Mitchell came from a political family the reader might be inclined to assume that he was astute at analyzing the political environment in which he had to implement his vision. In fact, this assumption would be mostly accurate, but Mitchell made a few very critical miscalculations. These critical miscalculations developed into insurmountable obstacles during the execution portion of his vision. More careful crafting of his argument, with a greater emphasis on the esteem of others, may have made the critical difference. Most of Mitchell's critical miscalculations can be attributed to mirror imaging. Initially, it seems Billy Mitchell believed that all Americans learned the same lessons he had from the Great War or, if they had not learned the same lessons, that his presentations could convince them that his lessons were correct. He did not seem to appreciate different, equally plausible, lessons could have been learned. These miscalculations as well as his strengths are brought to light in the discussion that follows.

US Public. As stated previously, describing public opinion is an imprecise undertaking, especially when the period of interest is more than 80 years past. However, there are aspects of this period that bear consideration on the publics' acceptance of Billy Mitchell's vision.

America was elated with the end of the war. Americans were familiar with the horrors of the trenches and believed that there would be peace for a long time. Some believed that the Great War was the war to end all wars. It was illogical for industrialized nations to go to war because war amounted to self-destruction, win or lose. President Wilson attempted to formalize American idealism in an organization known as the League of Nations.[102] It was not a favorable time for any military build-up.

In general, the US public was very enthusiastic about aviation even if the enthusiasm for things military was in rapid decline. Tales of aerial combat had been popular in the press during the war and when the pilots came home they began barnstorming shows throughout the country. Americans were attracted to their courage, skill, and daring. It is probable Billy Mitchell thought this enthusiasm would easily translate into decisive legislative support for aviation. It is also likely he calculated most citizens would not be exceptionally supportive of an exclusively military aviation campaign. Therefore, his decision to address civil and military aviation was a smart political choice in addition to being an industrial necessity.

On a less successful note, the image he painted of independent aviation as a means of striking at the enemy's productive capacity, was a double-edged sword.

> It may be at times the best strategy to damage and destroy property, and kill and disable an enemy's forces and resources at points far removed from the field of battle of either armies or navies. The forces that are attacked may be composed largely of women and children and other members of the nation's industrial and economic armies not capable of bearing arms, but extremely important as manufacturers of ammunition,

[102] Emile Gauvreau and Lester Cohen, *Billy Mitchell: Founder of Our Air Force and Prophet Without Honor,* (New York: E.P. Dutton & Company, 1942), 49-50.

> and the many other necessities that are equally as important as carrying rifles in trenches.[103]

Mitchell may have intended this description to cause Americans to fear enemy air forces. This fear would cause a frightened population to throw support behind an independent air force since a strong air force was the only protection against another air force. While bombing weapons production facilities makes operational sense today, especially in a total war scenario, it offended the sense of decency and fair play of some Americans in 1921. It was fine for one soldier to kill another fairly on the field of battle, but an airmen bombing factory employees who did not have the means to retaliate was a step too far.[104] This line of argument may have cost more supporters than it earned. [105]

Mitchell also seemed to under-appreciate that fact far more Americans died from action on the ground or at sea in WW I than did in the air. Those who served in the conventional Army or Navy, their relatives, and friends likely believed ground and sea action was the decisive form of combat in the Great War. Thus, many Americans who may have been favorably inclined toward the further development of airpower were offended by Mitchell's extravagant claims.

Congress. Billy Mitchell's vision focused primarily at generating action in the Congress. The heavy emphasis on public opinion in his campaign reflected his understanding that legislators are responsible to their citizens. It is probable that Mitchell acted believing that his vision would produce enough pressure on America's elected officials to ensure an overruling of Army and Navy objections. The legislature alone had

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[103] Mitchell, *Our Air Force*, xxii.

[104] Hurley, 37.

[105] This objection to bombing continues through the modern era. See Conrad C. Crane, *Bombs, Cities, and Civilians: American Airpower Strategy in World War II*, (Lawerence, Kansas: University Press of Kansas, 1993), chapter 3.

the power to create an independent air force as part of the projected Department of Aviation. Congress proved more difficult to influence than Mitchell anticipated. Again, it is difficult not get the impression that Mitchell was so confident in his vision that he did not anticipate opposition. The reader will recall from the Mahan chapter that the US Navy, through almost forty years of coordinated effort, had built a respectable fleet just prior to the Great War. Commercial naval and steel interests were not likely inclined to abandon the jobs and profits associated with the operation of a fleet. Unlike today, where one company would get the business either way, Mitchell's plan would have produced economic winners and losers. If Mitchell had even given brief consideration to this powerful congressional constituency, he would have concluded that they were not likely to be aviation supporters.

There was yet another powerful group from which Mitchell should have anticipated strong opposition. As the grandson of the railroad tycoon Alexander Mitchell, the man who notoriously defeated the efforts of reformers in Wisconsin to regulate his railroad, Billy Mitchell should have predicted that the railroads would view aircraft as unwelcome competition.[106] Thus, while Mitchell approached aviation as a political issue, he was not a very shrewd political practitioner. Overconfidence in his political skills or overconfidence in the logic of his vision seems to be the most likely explanations as to why Mitchell misjudged the existence and strength of his opposition.

Mitchell also overestimated his own military credibility as well. While the testimony of Mitchell and his fellow airmen was often compelling, the testimony of higher-ranking

[106] Ruth Mitchell, *My Brother Bill*, (New York: Harcourt Brace and Company, 1953), 210 and Hurley, 2.

officers with more experience in war was often given more weight by the audience. Higher rank and greater experience equaled to greater credibility. For legislators who may have been feeling pressure from the naval industrial complex or the railroads, this disparity in credibility provided a believable reason not to support aeronautical reform.

Mitchell's miscalculation of the mood of the national legislature may be the main cause of his frustration. If he believed that a populist argument could force the hands of Congress, then he may have concluded that gaining support within the military was unimportant. When he could not garner enough public support to surmount the opposition brought by industry and military leadership, his cause was mortally wounded.

Other Military Branches. The primary opponent to Billy Mitchell's vision was the US Navy. Mitchell's vision provoked the Navy for two reasons. Foremost were his assertions that a surface navy was obsolete. Statements like, "the warship is therefore doomed to certain destruction at the hands of Bombardment Aviation" or "… naval vessels will not be able to play the part they have in past wars, unless completely protected by aircraft" were insulting to navy personnel.[107] Additionally, such statements were greeted by reasonable doubt given the technological state of aircraft in 1921. At the time, it took faith to share Mitchell's conclusions. When these statements were coupled with his stated desire to incorporate all aviation under one department that was co-equal with the Army and Navy, the result for the Navy would have been ships fully dependent upon another service for their operation or a fleet composed entirely of submarines. Neither of these paths was politically acceptable. It is somewhat difficult to believe that the politician in Mitchell did not realize the magnitude of the angst his vision would raise

[107] Mitchell, *Our Air Force*, 68.

in the Navy. Why he chose to be so blatantly confrontational and dismissive may never be known but it is worth some consideration.

Mitchell lived through the rise of the modern Navy and it is highly unlikely that he could have missed the political importance the Navy had to US politicians and citizens. Therefore, it seems plausible that he knew his vision would be a political bombshell. If so, there are at least two reasons why Mitchell may have chosen this controversial path.

First, and most likely, Mitchell truly believed that the end of the surface fleet was an operation reality, a military imperative. If the reader gives Mitchell the credit for acting on this military premise, Mitchell's actions do not seem so ridiculous. After all, Mitchell was future oriented and emphasized that spending more on battleships, instead of aircraft development, was not cost-effective.[108] If this is the case, Mitchell's actions are almost a moral imperative, that is, he was forced to do it because he had special knowledge which, when exposed, would save lives and money even if it brought him personal condemnation. His experiences in the Great War also support this interpretation. Mitchell saw first-hand the rapid advances made by aviation. When he projected the pace of these advances into the future, his vision did not seem like science fiction to him. In Mitchell's mind, the things he promised could be done if the money and manpower were provided. Of course, in the minds of sailors, and considering the capability of aircraft at the time, Mitchell was simply a dreamer.

A second possible reason Mitchell took on the Navy so aggressively was for publicity. It is possible that the politician in him realized what a sensational stir it would cause if he launched a direct attack on the symbol of American foreign policy strength,

[108] Ibid., 67.

the battleship. This approach makes sense if Mitchell believed the ensuing stir would put him at the center of a large controversy and provide the opportunity for his vision, developed from actual combat experience in the Great War, to assume center stage. This explanation becomes more plausible if Mitchell believed he was holding five aces (or if he knew he was resigned to the idea of never being promoted again). If he was so confident that his rationale was sound, even to the most casual observer, he may have calculated that the public mayhem would get his foot in the door and that the facts presented would quickly carry the day. Even if he did not get everything he asked for, he would get more than aviation was getting at the time.

The US Army. Initially, it is probable that Mitchell expected some support for independent aviation from General Pershing, the Commander of the American Expeditionary Forces in World War I. General Pershing had been supportive of aviation during the War and personally commended Mitchell for his leadership. Since, Mitchell had discussed the European views of aviation as an independent force with Pershing during the war he may have hoped Pershing would come out in support. If Mitchell believed this, he must have been unaware that the non-flying Major General Mason Patrick, Mitchell's commander in Europe and a friend and West Point classmate of General Pershing's, would use his personal relationship with Pershing to quietly undermine Mitchell personally and all aviators in general. Mitchell's condescending attitude toward non-pilots during the War alienated Patrick and now all airmen would pay the price.[109]

[109] Hurley, 49.

On 1 October 1919 Patrick sent a letter to Pershing congratulating him on his triumphant return to the US.

> Those of us who were near enough to judge, have no doubt that you thoroughly deserve the recognition and the honors which have been accorded you. You handled every situation in a big, manly way, and you won our admiration. It was a rare privilege to have served with you.[110]

One month later, 11 November 1919, Patrick wrote to Pershing again,

> I believe, as I have set forth, that the existing Government machinery, with a comparatively slight addition, will be sufficient to handle of these matters and that the creation of a separate Department of Aeronautics would be little or nothing, except an organized assault on the treasury, with a view to securing large sums of money, much of which would practically be wasted.
>
> It is understood that there has grown up in the Air Service itself a strong feeling on the part of some of the officers that their salvation lies in such a separate department. I cannot help thinking that most of them are influenced more largely by their own personal desires and ambitions than by a strict regard for the best interest of the United States. Such a separate department will carry with it a separate line of promotion and would bring in its train a number of other corollaries, all of which I think are objectionable. A common-sense view of the matter is that a normal, even though possibly somewhat slow development, and absolute subordination of personal feelings and ambitions are necessary if this matter is to be decided right.
>
> …In this connection, it must not be forgotten, however, that the air force, although a combat arm, is auxiliary and must work in unison with the ground troops or with the fleet. It cannot act as a separate and independent force.[111]

Three months later, the "selfless" Patrick wrote another letter to Pershing asking his help in obtaining a high level position in the Federal Power Commission and Pershing

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[110] Personal letter from Mason Patrick to General John J. Pershing, 1 October 1919, General John J. Pershing Papers, Manuscript Division, Library of Congress, Washington, D.C.

[111] Personal letter from Mason Patrick to General John J. Pershing, 11 November 1919, General John J. Pershing Papers, Manuscript Division, Library of Congress, Washington, D.C.

complied.[112] While Patrick was not selected for the post with the Federal Power Commission, he was appointed Chief of the Army Air Service the following year. His appointment was largely interpreted as an effort to quell Billy Mitchell and his followers.[113] These letters add confirmation to that opinion.

In essence, the self-promoting Patrick suggested Mitchell and his cronies were only advocating aviation for self-glorification, but Patrick himself was a selfless, loyal servant. One topic, however, is noticeably absent in Patrick's letter to Pershing. Patrick omits any serious focus on the actual operational impact aircraft might have on subsequent warfare. A marked distinction between this letter of Patrick's, and Mitchell's remarks at the same time, is that Mitchell focused on opportunity while Patrick focused on costs.

Patrick's posturing may well have destroyed the one best chance Mitchell held in gaining credibility within the Army and Congress. When Pershing, as Chief of Staff of the Army, did not come out in favor of a separate air force, Mitchell's vision was out of airspeed and altitude.

Mitchell was probably surprised by the magnitude of the opposition that the other branches of the Army displayed toward his goals. Again, this is probably due to Mitchell's inability to appreciate the way others felt about their wartime contributions. Mitchell was now saying that armies and navies were second rate compared to airpower, but the experiences of others in the war did not immediately support his conclusion. If,

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[112] Personal letter from Mason Patrick to General John J. Pershing, 29 February 1920, and Personal letter from General Pershing to the Secretary of War, 29 May 1920, From General John J. Pershing Papers, Manuscript Division, Library of Congress, Washington, D.C.

[113] Hurley, 49.

on the other hand, Mitchell was combative to draw attention to aviation, he may have been pleased by the increased controversy.

By 1921, Mitchell understood that the traditional Army was unlikely to support the aviators' drive for independence, but his experience led him to conclude that no other course was possible. As far as Mitchell was concerned, the Army had done a poor job fostering aviation and was unlikely to change. Aviators would have to find a way to make it on their own.

Aviators. Aviators loved and shared Mitchell's vision even if they deplored his abrasive methods. To them it was attractive, credible, and challenging. While there were differences of opinion how to bring the vision to fruition, few doubted that airpower had the capacity to become the new queen of warfare. In the long run, Mitchell's inspiration would remain with this group, his only true comrades, until the vision came to fruition with the assistance of many other actors and events including another world war and the atomic bomb.

c. Obstacles/Constraints. **Besides the serious political and organization restrictions detailed above, Mitchell and his followers faced three other serious constraints; proof of wartime effectiveness, immature technology, and the peace movement.**

The first two are interrelated. When the Navy and War Departments tried to discredit Mitchell, he did not have the hardware available to demonstrate his claims. Mitchell had witnessed the rapid technical advancements that occurred in Europe during World War I, but most of the US could not readily accept the claims that Mitchell made. While Mitchell knew what might be possible, his opponents maneuvered him into a

corner where he could not prove his claims because he lacked the necessary technology. In other words, Congress and the other military departments were unwilling to fund the development the required aircraft, munitions, and infrastructure because Mitchell could not prove the things would work beforehand. He was truly in a no-win situation. Additionally, the war ended before aviation developed in numbers and sophistication adequate to produce a serious impact on ground or naval combat. This situation left Mitchell and his followers with no historic precedent to "prove" their point. Actually, opponents could use the history of the Great War to prove that the impact of air power was negligible and that airmen were simply full of hot air.

Finally, the conclusion of the Great War left much of America in a pacifist state of mind. President Wilson's proposed League of Nations and armament limitation talks led many to believe the probability of another major war was remote. These feelings resulted in a general apathy toward things military and made any attempt to expand military capabilities a serious uphill battle.

d. Alternate Visions. **There is no good reason to believe that Mitchell ever considered any future for US aviation other than the one espoused in *Our Air Force*. He may have benefited from considering other approaches but many of his options were fraught with peril.**

If he had quietly gone along with the Army it is likely that aviation would have been developed mostly as for ground support as the Luftwaffe was in Germany between the wars. This route would have sacrificed much of the capability that Mitchell found essential.

If he had avoided attacking the Navy he would have permitted the myth of the invincibility of the battleship to continue. This might have left the US with a serious vulnerability and slowed the development of naval aviation, since one can view the development of naval aviation as a response to Mitchell's challenges.

Finally, if he had stressed only deep strike and not attacked the Navy, he would still have found himself at odds with the Army and the public. The Army wanted to ensure aviation was available to support ground combat and was opposed to airmen operating independently. They felt that an independent air force would violate unity of command. The public was averse to the idea of bombing civilians and probably would not have supported the creation of a new branch of the military to perform that function alone.

None of Mitchell's options were very attractive. Even in retrospect, it is difficult to choose a different vision that would have served the functions required to ensure US military aviation was healthy for the next war and avoided confrontations with other groups. It is possible that Mitchell could have deflected a portion of the animosity by consulting more with conventional soldiers and by limiting his inflammatory remarks.

e. Test Visions Against Alternate Futures. For Mitchell, the future was simple. Either the US would fight a country that had an air force or it would not. If the other country had an air force and the US did not, Mitchell believed the US would lose. The US could not prevail on water or land without first controlling the air. If the other nation did not have an air force and the US did, the US would win handily.

f. Select appropriate vision. As stated earlier, evidence does not suggest that Mitchell considered alternatives. If so, it is likely he would have chosen the same path

anyway. His combat experience convinced him of the necessity and correctness of this vision.

CREATION SUMMARY

Evidence does not suggest that Mitchell used a structured process similar to the one presented in this thesis to develop his vision. If he had done so, he may have avoided some of the problems that befell him.

In retrospect Mitchell made several major mistakes. First, his actions indicate that he assumed everyone he came in contact with could learn to have the same enthusiasm for airpower that he did. In a word, he mirror-imaged. He believed the lessons he learned in the Great War were so obvious that they would gain immediate acceptance inside and outside of the military. Second, he underestimated the ability of the old guard within the military to withstand public pressure for aviation reform. He specifically misjudged the idea that rank equated to credibility in the eyes of Congress. He also misjudged the political support for disarmament, pacifism, and isolationism. The American people did not fully support the bombing of civilian populations. They were not in favor of adopting such a policy because they viewed it as immoral and feared that US adoption would incline others to do likewise.

Mitchell's choices were not very attractive. He could aggressively pursue an independent air force based on his lessons from World War I, or he could watch as air forces continued to wither as a support function to the Army. The first option represented the best combat solution but the most difficult political one while the latter represented an easy political solution with bad combat results. Either way, Mitchell would have ended up on a horn.

COMMUNICATION

Content. As stated previously, Mitchell focused on swaying public opinion to achieve his objectives. Though not prominently discussed within this thesis, Mitchell's vision encompassed civil and commercial aviation as well as the military. His idea for a Department of Aeronautics attempted to portray the improvement of aviation as a benefit to all Americans.[114] Mitchell also deserves credit because he used simple and easily understood language to communicate with the public.

Mitchell also did a good job communicating with airmen. Some of Mitchell's written flight guidance became the standard within the Air Service and many of the terms he used to communicate remain in the US Air Force lexicon today.[115]

Mitchell was a failure with the army and the navy. His words and approach were highly antagonistic toward these groups and created opponents. It was these opponents in the armed forces that influenced Congress sufficiently to block Mitchell's agenda.

Timing. Mitchell was trying to pitch MNS change at a time when the country was opposed to any increase in the military. Given that his career limited the amount of leeway he had in selecting a time to unveil his vision, it is doubtful that he would have made greater headway with the public or Congress by waiting even if his career had lasted until his death in 1936. In some ways, it was probably best to do it as close to the Great War as possible since the war was still fresh in the minds of the public and his celebrity status provided a forum to air his views. On the other hand, he may have

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[114] Mitchell, *Our Air Force*, 199.

[115] Maurer Maurer, ed., *The US Air Service in World War I, Vol. III*, (Washington, D.C.: The Office of Air Force History, 1979), 16-51.

reduced the opposition within the Armed Forces if he had worked harder within the system before to appealing to the general public.

Channel. Mitchell serves as an excellent example of how to use all available channels to communicate a vision. He communicated his message through books, magazine articles, and speeches. He organized air demonstrations and competitions throughout the country to draw attention to aviation. One of the hallmarks of Mitchell's communication strategy was the sinking of the *Ostfriesland* in 1921.[116] Press and dignitaries from throughout the US were on hand to observe the event. This one-hour exhibition provided Mitchell and the aviation cause more credibility and exposure than any other form of communication. Successful demonstrations are worth a million words. On the other hand, had Mitchell and his team failed for any reason, it is probable that it would have been a blow from which aviation would not have recovered for a very long time.

A credible case can also be made for the idea that Mitchell engineered his court martial as another publicity stunt.[117] If so, he deserves credit for using the media to get a message across to the American people, although doing so should also diminish his reputation as a professional military officer. Mitchell was an excellent communicator, had his message been more palatable to more people there is little doubt he would have accomplished more.

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[116] Hurley, 65-70.

[117] General James H. "Jimmy" Doolitte paraphrased by Dr. David R. Mets, Maxwell Air Force Base, Ala., interviewed by author, 15 May 01.

EXECUTION

During his lifetime Mitchell failed to execute his vision. After he died, the ember of it glowed in the hearts of airmen until World War II and the atomic bomb accomplished what Mitchell, reason, and demonstration could not for almost thirty years.

Even though he failed in general, Billy Mitchell executed his vision in textbook fashion as a leader of aviation officers. He truly walked-the-walk. It must have been readily apparent to Mitchell that he was not going to be personally rewarded within the Army for his efforts as soon as Mason Patrick was chosen as Chief of the Army Air Service and tried to force Mitchell to resign.[118] At that point, had Mitchell only been motivated by personal aspirations, he would have renounced his previous vision and come in line with the conventional Army thinking. Mitchell did not. He continued, with a somewhat lower profile, to preach the vision. He made efforts to improve the personnel, the resources, and the equipment of flying personnel. He continued to develop the idea that airmen had a different culture and nurtured that independent culture. It is reasonable to assume that had Mitchell become the Chief of the Army Air Service instead of Patrick (the issue of rank aside), his methods would have provided a good case study for how to execute a vision within an organization. As it turned out, Mitchell never had the authority to turn his vision into hardware, personnel, and doctrine.

Mitchell's vision history provides a clear lesson of the difficulty of executing a vision within the government bureaucracy under unfavorable conditions. Some have accused Mitchell of being covetous of rank, yet in the end, it was his lack of rank and position that inhibited him from executing one of the most accurate and far- reaching

[118] Hurley, 69.

military visions of the 20th century. History has proven that the majority of the vision Mitchell preached was militarily correct. It has also demonstrated that without the backing of the appropriate authority a great vision can be "twisted by knaves to make a trap for fools."[119]

The spirit of Mitchell's vision remained inspiring to airmen throughout the years. On 18 September 1947 at the signing of the act to create the US Air Force, Lieutenant General James "Jimmy" Doolittle commented, "this is the day Billy Mitchell dreamed of."[120]

CONCLUSION

Billy Mitchell was a visionary. His experiences in Europe during World War I gave him a unique perspective and were the basis of his vision for American aviation. For airmen, Mitchell's vision of an independent air force was realistic, credible, and attractive. For Congress, the Army, and the Navy it was none of these.

It was, perhaps, this uniqueness of his experience that brought into question whether Mitchell's vision was realistic and credible. Mitchell was confident that the future held more capable aircraft that would significantly alter the face of warfare. Other military men, lacking Mitchell's experience, did not agree that aircraft developments would be as significant as Mitchell preached. Mitchell was never able to bridge this credibility gap.

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[119] Rudyard Kipling, "If," on-line, Internet, 8 June 2001.

[120] "Air Force Heritage Older than 52 Years," *Air Force News*, 20 September 1999, n.p.; on-line, Internet, 5 May 2001, available from www.af.mil/news/sep1999/n19990917_991731.html.

Even after the sinking of the *Ostfriesland* provided positive proof of the potential of airpower, doubt remained.

This thesis suggests the cross-organizational nature of the change espoused by Mitchell was part of the reason this credibility gap remained even as evidence mounted in Mitchell's favor. The vision Mitchell described was, by the definition established in this thesis, MNS change. The Department of Aeronautics would have severely changed the cultures and functions of both the US Navy and the US Army and ran counter to the prevailing Congressional sentiments of isolationism and pacifism. The fact that none of these agencies saw Mitchell's changes as attractive provided additional incentives for them to question Mitchell's credibility.

Mitchell may have benefited had he taken time and conducted more interactive discussions with other groups prior to publicly pushing his vision. Even if he did not convince more groups to accept his vision, he would have developed a better feeling for the political landscape. He could have then modified his vision slightly, or at least turned down the rhetoric, to minimize opposition. Though one might still conclude that these steps alone would not have bridged the credibility gap.

Some fault Mitchell's personality for generating the opposition that airpower faced during the early years. While Mitchell's personality was probably a strong detractor, it is difficult to accept personality as the primary reason for Mitchell's lack of progress. This line of reasoning suggests that professional military officers reject a viable suggestion simply because of their distaste for the messenger. If this is true, it is a more serious indictment of the officers involved than a genuine disagreement over the potential of aviation. Instead this thesis suggests that there was a genuine disagreement and that

Mitchell did not do enough to bridge this disagreement before going public in an abrasive manner. The message Mitchell was bearing was so distasteful to so many groups that it is difficult to imagine how anyone could have sold it during the period in question. For conventional military thinkers in 1921, Billy Mitchell's vision was an ugly baby and Billy was an ugly doctor. For aviators, Mitchell was on the mark and they never gave up on his dream.

Chapter 5

ROLES AND RELATIVE IMPORTANCE

Beauty and Truth, tho' never found, are worthy to be sought.

Robert William Buchanan
To David in Heaven

INTRODUCTION

Chapters three and four provided detailed descriptions of the manner in which Alfred Thayer Mahan and William "Billy" Mitchell developed as visionaries. This chapter analyzes the role of the visionary for MNS change as suggested by vision literature and observed through the efforts of Mahan and Mitchell. After the roles have been thoroughly examined they are used as the basis for determining the relative importance of a visionary vis-à-vis other factors involved in MNS change.

ROLE ASSESSMENT

At the top level of analysis, Mahan and Mitchell created and communicated their visions; they were not directly involved in the execution. This one difference, a major deviation between theory and practice, results in serious repercussions for the visionary. Not only is there a handicap caused by the absence of executive authority, but there is also a simultaneous reduction to the credibility of the visionary due to the lack of positional status. Unfortunately for the visionary, this reduction in credibility translates into an even greater impetus for the resultant vision to be credible. In a company or individual unit where the leader is the visionary, the formal position of leader brings with

it an aura of credibility. This aura transfers to the vision and improves the likelihood that the rank and file will support it (if for no other reason than to avoid falling out of favor with the leader). The cross-organizational visionary must operate without a formal mantle of authority and therefore the vision alone must establish adequate credibility to survive on its own.[121] Of course, a formal leader providing top cover will reduce this difficulty, but before top cover is provided the visionary must establish credibility with the formal leader. Thus, establishing the credibility of the vision becomes a key issue. How is this done? What attributes of a vision are most important? An examination of attributes is in order, not only to shed light on these questions, but also to provide insight into the complexity and ambiguity associated with MNS change. The discussion also sheds light on the manner in which a cross-organizational visionary should perform the creation and communication tasks to compensate for the difficulties that arise when the visionary is precluded from an execution role.[122]

According to the definition adopted in chapter two, a vision must be "realistic, credible, and attractive."[123] Each of these attributes is important to the success of a

[121] The reader should recall from Chapter Two that the leader emphasizes commitment through his actions during the execution phase. There is also a practical loss in resources and personnel.

[122] Before continuing, it is reasonable to question whether or not the exclusion of the visionary is a reasonably facet of MNS change to generalize. While there is nothing to preclude the President from assuming all three functions, the cases of Mahan and Mitchell provide several reasons why this is unlikely. Developing and communicating a cross-organizational vision is time consuming and it is unlikely that any chief executive could spare the time required. It is much more appropriate for the President to play the role of top cover. Presidents are also unlikely to have the detailed level of knowledge required to make the vision internally consistent. Finally, those in formal positions of power need to consider preserving current capabilities to deal with current problems. Even the most forward-looking advocate of change is not likely to throw complete support behind a new concept before it is proven. It is much more reasonable to quietly protect the new idea from a safe distance, thus avoiding criticism if the idea fails.

[123] Burt Nanus, *Visionary Leadership: Creating a Compelling Sense of Direction for Your Organization (*San Francisco, CA: Jossey-Bass Inc., 1992), 8.

vision, but as just discussed credibility quickly emerges as a key issue and is examined first.

The case studies in this thesis suggest that establishing cross-organizational credibility is very difficult but not impossible. Both historical cases provide numerous examples of honorable, well-intended conventional warriors who did not view the new vision as credible. In Mahan's case, some sailors believed that mechanical ships would never be reliable enough to be effective and also doubted the government would pay for expensive new ships. In Mitchell's case, the navy fought the assertion that aircraft might make surface ships obsolete and the Army refused to agree that aircraft should operate independently of ground forces. One must wonder if the degree to which this type of opposition develops can be traced to the way the human mind solves problems. The human mind solves problems using familiar tools. If a painter and sculptor are asked to portray a beautiful woman they will likely produce not only a painting and a sculpture, but also women with considerably different features. An example of this type of thought process within the military sphere can be found near the end of WW II. After Germany had surrendered and Japan was left alone, several courses of action were presented to achieve Japanese surrender. The Army and Marines prepared for a ground invasion. The Navy recommended a blockade to starve the country into submission and airmen recommended intensified bombing. In retrospect, it seems that any of these approaches could have eventually succeeded, albeit at different costs to the US and Japan. The point being made is that more than one approach can solve a military problem and people inherently recommend what they know. In the US armed forces, this tendency is further polarized because funding tends to follow success. In the case of World War II, the

success of the atomic bomb and other air operations not only aided in the birth of an independent air force, but also resulted in the infant air force receiving the lion's share of defense funding for almost a decade afterward.[124] Warriors who are convinced of the efficacy of their branch, feel a moral responsibility to protect it because they believe victory, while never guaranteed, may be in great jeopardy if America were forced to enter combat against a superior force. Since no one can predict the nature of the next conflict, each group's argument retains validity. In the case of Mitchell, and to a lesser extent Mahan, opponents misused history to conclude that future conflicts would be like previous conflicts. Specifically, the Army leadership focused on its success in the Great War, as proof that air power would not be a decisive force. The differentiating factor between the airpower supporters and airpower doubters was focus. Supporters saw the possibilities that airpower brought, doubters focused on the costs. The evidence suggests that the lack of military support for airpower was based on this difference of focus. It was not a conspiratorial or diabolical plan. Thus, these case studies suggest that credibility is one of the most elusive ingredients for a visionary to obtain. Cross-purposes, worldviews, funding limitations, and different views of the future are all likely to provide incentive to outside organizations to withhold providing credibility to a new vision.

This same thought process seems to have an even greater impact when outside organizations determine whether a vision is realistic or attractive. Naval officers in 1921 were unlikely to have the technical competence required to determine whether or not Mitchell's claims about aircraft capabilities were credible or realistic. But they could

[124] Walton S. Moody and Warren A. Trest in Bernard C. Nalty ed., *Winged Shield, Winged Sword: A History of the United States Air Force, Volume II*, (Washington D.C.: Air Force History And Museums

easily determine that the demise of surface vessels was not attractive to their way of war. If this line of reasoning is supportable, it exposes the tip of a very discomforting iceberg. It may be more important for a visionary promoting cross-organization change to make a new vision attractive to other organizations than for the vision to be credible.

The cases of Mahan and Mitchell offer interesting insight to the relationship between credibility and attractiveness. While intuition may cause one to think credibility of paramount importance, the two case studies infer that attractiveness is more important than credibility. Mahan's vision was largely based on the selective use of history and tended to confuse necessary with sufficient causes. [125] Yet, because so many found the idea of a larger navy attractive, the shortcomings seemed to be brushed aside. On the other hand, hindsight indicates Mitchell's initial vision presented a fairly balanced view of the things that aviation could and needed to do within the US, but other organizations relentlessly attacked his credibility. Other factors were also at play, but it is not unreasonable to conclude that some of the attacks on Mitchell's credibility were the direct result of those who found his vision repugnant.[126]

The cross-organization visionary has the very unhappy task of trying to please many masters. In the end, when it comes to credibility versus attractiveness, it seems the visionary faces a difficult choice. He can either compromise and create an attractive vision that causes a minimal amount of anguish among outside organizations or he can attempt to develop the most credible vision possible and accept whatever opposition it

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Program, 1997), 102.

[125] Philip A. Crowl, "Alfred Thayer Mahan: The Naval Historian," cited in Peter Paret, ed., *Makers of Modern Strategy* (Princeton, N.J.: Princeton University Press, 1986), 452-54.

[126] The other factors at play include Mitchell's abrasive techniques and the immaturity of aviation technology.

generates.[127] Based on the previous discussion one may be inclined to compromise, rather than face the onslaught of criticism that Mitchell did. However, compromising may create difficulties of a different sort.

Based on the proposition that Mahan's vision was realized during the Spanish-American War and Mitchell's was complete in 1947, one could ask what attribute led these visions to survive even after their creators died? The most plausible explanation seems to lie in the assertion that the visions were incredibly attractive (inspiring) to those who responsible to carry them out. In other words, limiting opposition sounds nice, but if by doing so the vision fails to inspire deep cultural commitment from the members of the organization primarily charged with its execution, it might shrivel and die on the vine.

Thus far, this discussion indicates that attractiveness may be more important than credibility when it comes to gaining support for a vision across organizations, but it also hints that efforts to make a vision attractive may decrease the quality of the vision and reduce commitment among members of the organization responsible for the vision's execution. But this is not the final word on the subject.

Mahan and Mitchell can also lend support to the idea that a form of universal credibility may exist. Mahan's presentation demonstrated how a larger navy could aid in the achievement of US international security aims. In modern terminology, *The Influence of Sea Power upon History* represented a national military strategy that was congruent with the national security strategy. This congruence goes a long way in explaining why Mahan's book was so popular. Mitchell was not so fortunate. *Our Air Force* appeared at a time when the national security strategy was one of disarmament and isolationism.

[127] Mahan's case demonstrates that it is possible that for some visions both could be done, but the author does not rate this set of circumstances as likely within the modern defense structure.

Arms control treaties were preferred over any sort of military build-up. Mitchell never developed clear reasoning for an independent air force that was congruent with prevailing view of the US role in international affairs. Once World War II ended and America realized it must remain engaged in the international community. An atomic air strategy, based on an independent US Air Force, was the most cost-effective way to ensure security. Thus, creating a separate air force became congruent with national security strategy. These observations imply that visions congruent with the national security strategy will gain adequate cross-organizational credibility to overcome institutional resistance, while visions that conflict are less likely to do so.

This need to integrate a new vision with the national security strategy also suggests an additional role for cross-organizational visionaries. Namely, visionaries should serve a bridging function between their organizations and other organizations affected by the MNS change proposed. It is not likely, or perhaps even desirable, that all organizations support the new vision, but a thoughtful consideration of the likely reaction of each organization to the vision can avoid unnecessary animosity. Mitchell failed to accomplish this function and paid a heavy personal price for it. While he knew his vision was achievable based on his lessons from the Great War, he was wrong in assuming everyone else knew this as well. Mitchell was somewhat unique in that he viewed trench warfare from both the ground and the sky. He failed to understand that his experiences were unique and that others would not be willing to immediately accept his conclusions. It may have gone better for airmen if Mitchell had solicited the views of others more diligently before demanding an independent air force.

Attention to the bridging function is also likely to improve realism, attractiveness, and credibility both within the primary organization and among outsiders. Prior to Mahan's writing, naval reformers had internally discussed the need for an expanded navy for over fifteen years. Mahan was a part of these discussions and it is reasonable that they helped improve his writing.[128] Thus, when his vision was made public it was already fairly polished and added to his credibility. Mitchell published *Our Air Force* in 1921, only three years after World War I ended. It is doubtful that this was a long enough period for an airpower vision to be fully developed and debated, especially given the nascent character of aviation technology at the time. As an interesting aside, the need for bridging seems to run counter to the commonly held assumption that visionaries need to be highly creative. Neither Mahan nor Mitchell was an exceptionally creative individual. Their the ability to perceive and paint existing concepts seemed to be more essential. Any vision that is too foreign, regardless of its correctness, is not likely to be enthusiastically accepted. One can be too creative in the vision process.

This discussion has made it abundantly clear that the visionary for MNS change operates in a manner that is significantly different from his corporate or unit counterpart. It has also shown that creating a vision that is realistic, credible, and attractive to many organizations is very complicated and may not be possible at all. Finally, it has suggested that the visionary for MNS change plays a bridging role in which he interacts with other organizational cultures. Together these finding paint a bleak picture for the MNS visionary, but hold out hope that if the visionary can inspire extremely strong commitment among the primary organization responsible for the change, that

[128] Robert Seager II, *Alfred Thayer Mahan: The Man and His Letters* (Annapolis, Maryland: Naval Institute Press, 1977), 199-200.

organization may persevere in pursuit of the vision until it is achieved. It also suggests that achievement of a vision for MNS change might be contingent upon a change in the national security strategy. Emphasizing the roles discussed above, the next section discusses the relative importance of a visionary vis-à-vis other factors in precipitating MNS change.

THE RELATIVE IMPORTANCE OF THE VISIONARY

There are many factors swirling in the cauldron of military innovation literature.[129] Each provides a framework in which to consider military innovation. None is satisfactory alone. Five of the most prominent are:

1. Structural – Innovation is tied to changes in the international security environment.
2. Societal – Cohesion and resources within a society provide support for innovation while internal divisions or tensions decrease the likelihood.
3. Organizational – Innovation is dependent on the nature of the organization concerned. In general organizational change is considered difficult but possible.
4. Cultural – Social culture determines the manner in which organizations innovate.
5. Technological – Innovation related to changes in technological developments.

If one approaches the change process hoping to ascertain fixed cause and effect relationships, he is unlikely to be satisfied. Each of the factors above can play the role of stimulus or intervening variable. For instance, the increasing expansionist tendencies of Germany around 1890 (a structural factor) can be interpreted as the stimulus for the American desire develop a modern navy. Today, technological advances can be viewed as stimuli for the desire to develop a space based missile defense, but some in the US feel developing such a system may alter the current international environment (structural factor) and are slowing the process. In the first example structural change is a stimulus in

the second it is an intervening variable. Besides this ability to change roles, reality places no limits on the number of factors that can serve as stimuli nor does it limit intervening variables. While the above categories are useful heuristic devices and some seem to have greater explanatory power than others do, all are moderated by leadership.

The preceding section developed in detail the roles of a cross-organizational visionary. It also demonstrated the extreme difficulties a visionary must attempt to overcome in developing a realistic, credible, and attractive vision for several organizations. It is the author's conviction that these functions alone warrant considering a visionary as a necessary factor in MNS change. Given the near infinite variety of ways the US can respond to a given stimulus, including deciding not to respond, it seems reasonable that an experienced military leader is necessary if only to apply professional judgement and select an appropriate response. Stated differently, the visionary selects the proper response based on professional judgement, assembles the new methods in a coherent whole, and communicates it to all organizations involved. Visionaries provide the intellectual underpinning for a new way of war. Visionaries can also be viewed from a different perspective.

If, as Rosen suggests, innovation results from the efforts of two groups, top cover and practitioners of a new way of war, which of these is likely to provide the intellectual foundation and serve as a bridge for a new way of war?[130] The cases of Mahan and Mitchell indicate that visionaries are likely to be special cases of the latter group. A senior leader providing top cover is unlikely to perform these functions for three reasons.

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[129] A brief but thorough overview of these concepts is provided in J. A. Isaacson, C. Layne, and J. Arquilla, "Predicting Military Innovation," (Santa Monica, Calif.: RAND Corp, 1999), 11-20.

[130] Stephen Peter Rosen, *Winning the Next War: Innovation and the Modern Military*, (Ithaca, N.Y.: Cornell University Press, 1991), 251.

First, senior leaders face serious demands on their time and are unlikely to have the time required to develop an internally consistent new way of war. Second, senior leaders may lack the level of experience in the new way of war and feel uncomfortable guiding the development directly. Third, senior leaders have a responsibility to preserve the existing way of war while the new way develops. If the new way does not appear to develop as expected, senior leaders may need to pull the plug. On the other hand, junior officers are unlikely to possess broad enough knowledge about military affairs to make effective high level decisions. Thus, the visionary seems to have a special niche within the change process. The visionary must again serve as a bridge. Only this time it is between the senior leadership willing to provide top cover and the energetic yet inexperienced junior officers.

It should not be forgotten that the visionary's efforts result in the production of a vision. While technically separate from the visionary, an effective vision will also perform valuable roles that are rightfully credited to the visionary's efforts. These roles include serving as a source of inspiration and guidance. As a common objective, it is a rallying point and provides guidance for thousands of day-to-day decisions. It is incorporated into the heart and soul of the new emerging culture.

Mahan's story supports the assertion that a visionary is a necessary factor in MNS change. Studying the life of Mahan one is left wondering whether change movements will create a visionary if no one volunteers for the task. Mahan was unlikable, a poor seaman, and not trying to become a visionary. Yet, because of a growing awareness of a greater global economic role in America, the search for overseas markets, the US Navy's desire to modernize, and the rise of Germany and Japan, many groups needed a

comprehensive explanation of how to achieve their aspirations. Mahan's book provided the explanation and this scholarly introvert was catapulted to international renown.

Mitchell's case indicates that the visionary alone is not a sufficient factor in MNS change. Mitchell came back from the Great War brimming with the determination to put airpower on a solid footing. Mitchell dedicated his professional life to the establishment of airpower as an independent force and presented the issue in a manner that was, in retrospect, a very accurate picture of tasks that needed to be accomplished. However, disarmament, distaste for war, the return to isolationism, and disagreements with other uniformed officers frustrated his attempts and eventually led to his court martial in 1926. Mitchell's vision survived his retirement and death and continued to inspire airmen for decades. The quantum improvements in aviation technology realized in World War II, a significantly altered international security structure, and changed domestic opinions concerning isolationism, brought much of Mitchell's vision to fruition during the Cold War.

Before concluding, it is worth pointing out that there are no guarantees that the vision accepted and inculcated is the correct one for the next war. There are still those among the army and navy willing to debate whether an independent air force is the best organization for military aviation. Assessing the appropriateness of a given vision is not a simple task.

As outlined above, the vision literature and the two case studies examined in this thesis suggest that a visionary is necessary but not sufficient for achieving MNS change. The visionary is required to pull disparate factors together, distill them, and champion them in a manner that portrays the future as realistic, credible, and attractive. These

functions are unlikely to be accomplished by senior officers willing to provide top cover or junior officers energetic about change. Therefore, the visionary seems to have a definable and necessary niche.

Chapter 6

CONCLUSIONS AND RECOMMENDATIONS

This nation should commit itself to achieving the goal, before this decade is out, of landing a man on the moon and returning him safely to the earth.

John F. Kennedy
25 May 1961

What extraordinary vehicles destiny selects to accomplish its design.

Henry Kissinger
White House Years

The great captains are those who think out new methods and then put them into execution. Anybody can always use the old methods.

General Hugh Trenchard

Our national and military leaders owe you a culture that supports innovation and a system that rewards it… Officers willing to think big thoughts and look at problems with a fresh eye are sometimes wrong. New ideas don't always work. If you pick up this mantle, some of your ideas may fail. But we need to give you this freedom, and we will.

George W. Bush
US Naval Academy Graduation 2001

CONCLUSIONS

This thesis was undertaken to investigate the role of the visionary in MNS change with the goal of providing both practical insights for space operators seeking MNS change and improved theoretical understanding of military innovation. Chapter two used existing vision theory to create a hypothetical framework designed to highlight differences between vision for a single organization in which the leader has the executive power to implement the vision and vision used to facilitate change across multiple

organizations within the US Government. This framework was then used in chapters three and four to present the reform efforts of Mahan and Mitchell in a structured manner.

Mahan was an accidental visionary because he did not set out with visionary intentions nor was he well liked or respected as a sailor. However, assisted by contextual issues, strong academic credentials, and capable writing skills, he became a visionary. His book, *The Influence of Sea Power on History*, served as vision for many within the US security community. Popular appeal catapulted Mahan and his vision became an immediate sensation.

Mitchell was an unwelcome visionary because his vision was not warmly accepted within the government. In 1921, when Mitchell published *Our Air Force*, isolationism and disarmament ruled the day and aircraft capabilities were still quite modest. Given this environment, Mitchell's personal limitations, and a lack of top cover, he was unable to present his vision in a manner that made it appear realistic, credible, and attractive to anyone other than airmen. The redeeming value of Mitchell's vision seemed to lie in its great appeal to airmen. When the US Air Force finally achieved independence in 1947 the name Mitchell was on many lips.

Chapter five illuminated the roles played by a cross-organizational visionary. The results of that study framed the importance of a visionary relative to other factors associated with military innovation.

This research suggests three conclusions. First, the visionary plays a different role in cross-organizational change than he does within a single organization. Second, a visionary appears to be a necessary but not sufficient factor in MNS change. Third, a

visionary is necessary for increasing the role of space in the national security structure. The following paragraphs present these findings in greater detail.

CROSS-ORGANIZATIONAL CHANGE IS DIFFERENT

Existing instructional vision literature does not adequately address the additional challenges that must be faced when attempting to implement a vision that crosses organizational boundaries. The case studies of Mahan and Mitchell both support the assertion that the visionary can expect little to no role in the eventual execution of their vision. Therefore, additional attention must be given to properly performing the creation and communication functions.

Ideally, the visionary should make the vision as attractive as possible to the group primarily responsible for its execution. It is also beneficial to avoid unnecessary conflict with external organizations, but if the choice must be made between inspiring the primary group and pleasing external groups, Mitchell's case suggests the former is more important.

The cases of Mahan and Mitchell also underscore the idea that cross-organizational visionaries face a significantly more difficult challenge in creating a vision that is realistic, credible, and attractive to many organizations. Each organization defines these attributes according to institutional norms that can result in serious, but equally credible, differences of opinion. In some cases, these differences of opinion will remain even in the face of concrete evidence to the contrary.

A VISIONARY IS NECESSARY BUT NOT SUFFICIENT

In the introduction to this thesis the author noted that existing innovation literature divides the role of leadership in military innovation into the functions of top cover and visionary. The case studies of Mahan and Mitchell suggest both of these remain true for MNS change and suggest that a third form of leadership, the visionary, may also be required.

For Mahan, Admiral Luce provided him with top cover and permitted him the time necessary to develop the historical underpinnings that enhanced the credibility of his argument.

Mitchell did not have top cover and suffered accordingly. However, one can argue that airmen in general received top cover through the establishment of the Army Air Service and later the Army Air Corps. Although the top cover was not as comprehensive as Mitchell might have liked, it did exist and enabled some degree of progress in the interwar years. The key unanswered question that remains is, what would US Air Forces have looked like at the start of World War II if Mitchell's wish had been granted in 1921?

Mahan and Mitchell serve as good case studies to understand and assess the role of the visionary in major national security change. It seems the complexity of this process does not only require "junior officers practicing a new way of war," but also requires seasoned officers with the experience and skills necessary to describe and legitimize a new way of war.[131] These officers should use their considerable professional judgement to develop a vision that meshes with the US National Security Strategy.

[131] Stephen Peter Rosen, *Winning the Next War: Innovation and the Modern Military*, (Ithaca, N.Y.: Cornell University Press, 1991), 251.

Taken together, Mahan and Mitchell suggest that a visionary is necessary but not sufficient to bring about major national security change. They are necessary because of the value judgements required and the need to bridge between organizations. Visionaries give tangible form to new ways of war. However, Mitchell's case indicates that vision alone is not sufficient.[132] His vision inspired airmen to continue to strive for an independent air force, but they did not achieve this objective until after World War II. The war changed America's role in the international structure and moved domestic opinion away from isolationism. It also spurred the development of the atom bomb and further advances in aircraft technology. The combination of these factors resulted in an independent air force and changed the national security structure of the US in ways that vision alone could not.

A SPACE VISIONARY IS REQUIRED

Based on the conclusions outlined above and the argument that advancing space is a MNS change due to its cross-organizational characteristics, this thesis suggests that a visionary is necessary for space. This visionary should describe a new way of war that incorporates space capabilities in a way that is highly attractive to space professionals and is as inoffensive as possible to other involved organizations. However, a visionary alone will not be sufficient. The vision must also accompany an undetermined number of other factors that will combine to spur a change in the US national security strategy. Based on the case studies of Mahan and Mitchell, structural and technological factors appear to be the leading candidates as complementary agents of change. Specifically, if

[132] One could also argue that Mitchell was simply not a good visionary because he failed to bridge with other organizations, but this explanation is less satisfying.

another country becomes openly challenges the existing international order, develops anti-satellite capabilities, or if the US is attacked by a ballistic missile, the calculus may change to one more supportive of space development. The case of Mahan suggests that if the calculus changes to the point where space development appears desirable to most major organizations, an unsuspecting individual may be propelled to the role of visionary. Either way a space visionary is necessary to develop and present a new way of war in a tangible manner. Since the military has performed space operations for several decades, the sagas of Mahan and Mitchell support the conclusion that the time for a space visionary could be rapidly approaching. It is not too early. If the visionary bridges organizations effectively, or is assisted by intervening factors, the vision will be seen as realistic, credible, and attractive to multiple organizations. MNS change, while difficult, is possible.

RECOMMENDATIONS

Two recommendations are appropriate. The US military faces at least four issues that may require MNS change to appropriately integrate them into the US security structure. These issues include integrating space weapons, information operations, homeland defense, and directed energy weapons. This thesis suggests that a visionary or visionaries may be essential to successfully adapt the US security structure. The armed forces can help develop these visionaries by developing and rewarding career paths that allow promising officers to obtain both education and experience within these areas and existing branches. Simply put, cross-organizational vision requires cross-organization experience and education.

Finally, scholars need to be encouraged to place greater emphasis on Major National Security change as special category of innovation. By exploring the cross-organizational nature of MNS change this thesis demonstrates that it is significantly more difficult than implementing change within a single organization. This thesis highlights some very interesting areas for additional inquiry. First, what impact does the current structure of the DoD have on accomplishing MNS change? Intuitively it seems that branch loyalty and inter-service rivalry have become more prominent since the establishment of the current DoD structure. If this is true, modern MNS change may prove more difficult than it did for Mahan and Mitchell. Second, this thesis suggests that MNS change may be tied to changes in the National Security Strategy. Since there are several pending changes that seem to fit the category of MNS change, would this mean that the National Security Strategy must change to accommodate each or might it be desirable to attempt several simultaneously? Third, The cases of Mahan and Mitchell suggest that inspiring the group primarily responsible for the vision is highly important. What happens when this group is ill defined or does not exist? Can organizations like the Ballistic Missile Defense Organization sustain a vision when all of the military members are temporarily assigned and cannot view themselves as career missile defenders? This thesis suggests successful vision, and thus successful innovation, is unlikely under these circumstances. Indeed, change within an organization or single branch of the military is fairly well defined; change across several departments of government remains mystifying.

CLOSING STATEMENT

Mahan had a fairly easy time serving as a visionary because contextual factors aligned in his favor and the Army, due to its internal disarray, was unable to mount any

resistance. Mitchell was unsuccessful initially because contextual factors were against him as were the Army and Navy leadership. Today, given the entrenchment of bureaucracies within the nation security community and the zero sum nature of bureaucratic competition, the author is not confident that cross-organizational vision is possible. However, by creating and communicating a vision as described in this thesis, the odds of succeeding can be improved. The advice this study seems to extend can be summarized as follows: A visionary is necessary for MNS change because human judgement is required to formulate an appropriate response to other change factors, and communicate that response to others in a way that they will understand. It should be presented in a manner that is as attractive as possible to the primary group responsible for its execution and as inoffensive as possible to outside groups. The vision should be congruent with the National Security Strategy to enhance cross-organizational credibility.

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